

SENATE ENVIRONMENT COMMUNICATIONS AND THE ARTS REFERENCES COMMITTEE

INQUIRY INTO THE ENERGY EFFICIENT HOMES PACKAGE (CEILING INSULATION)

12	17/2/10:87	Fisher	Standards Australia	Provide opening statement	<p>Do you have those alternatives in your written statement?</p> <p>Ms Riley-Takos—Yes, I do. Would you like me to provide you with that?</p> <p>CHAIR—That would help.</p> <p>Ms Riley-Takos—Okay.</p>
13	17/2/10:89	Barnett	Standards Australia	Advice from Electrical Safety Office of Qld	<p>The advice that we received from the Electrical Safety Office from Queensland was in late September last year.</p> <p>Senator BARNETT—Would you provide a copy to the committee, please, on notice?</p> <p>Ms Riley-Takos—Sure.</p>
14	17/2/10:89	Barnett	Standards Australia	List of nominating organisations	<p>You are relying on the evidence that you have, but who developed the two standards that you referred to in your submission?</p> <p>Ms Riley-Takos—I can provide you a copy of all the nominating organisations that were represented on the committee.</p>
15	17/2/10:90	Barnett	Standards Australia	Technical committee	<p>Can you take on notice to provide further and better particulars regarding who was on the technical committee, who was on the substantive committee, what the vote was, who voted which way and any further details in that regard?</p> <p>Ms Riley-Takos—Yes.</p>
16	17/2/10:91	Barnett	Standards Australia	Respond to other submissions	<p>Could I just draw to your attention to the Aluminium Foil Insulation Association submission—I think it is on page 2 or 3—and likewise to page 2 or 3 of Dr Aynsley’s submission; also to Mr Renouf’s submission; and to the evidence we have received. It is all reasonably compelling evidence. I would be interested in the response from Standards Australia.</p> <p>CHAIR—Perhaps that question could be taken on notice</p> <p>Senator BARNETT—Yes, I am happy for you to take that on notice.</p> <p>Ms Riley-Takos—Absolutely.</p>
17	17/2/10:93	McEwen	Standards Australia	Consultation on AS 3999	<p>Ms Riley-Takos—The one subject of the consultation is with respect to AS3999.</p> <p>Senator McEWEN—When do you expect that consultation to be completed?</p> <p>Ms Riley-Takos—5 March is the deadline that we been given. I would be more than happy to provide the names of the organisations that have been consulted and the nature of the letter.</p>

18	17/2/10:94	Barnett	Standards Australia	Meeting minutes	<p>Since the program commenced in February last year, has Standards Australia had any communication with or between Minister Garrett or the department?</p> <p>Ms Riley-Takos—Yes, I attended a meeting with other industry representatives on, I believe, 27 October 2009, which was conveyed by the department</p> <p>BARNETT—Did you receive minutes from that meeting?</p> <p>Ms Riley-Takos—I do not recall, but I do not think there were minutes from the meeting—or at least I did not receive them.</p> <p>Senator BARNETT—Can you check and, perhaps on notice, let us know?</p>
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15 March 2010

Dr Ian Holland
Secretary
Senate Environment, Communications and the Arts References Committee
PO Box 6100
Parliament House
Canberra ACT 2600

Dear Dr Holland

Senate inquiry into Energy Efficient Homes Package (Ceiling Insulation)

Standards Australia is pleased to assist the Senate Environment, Communications and the Arts Reference Committee by providing information regarding the Energy Efficient Homes Package (Ceiling Insulation) Inquiry.

Following Standards Australia's evidence to the Committee Hearing on 17 February 2010, Standards Australia would like to supplement its evidence, by addressing questions on notice and clarifying our organisation's role.

For ease of reference, the information provided in this document is structured in three sections, as follows;

1. Summary of key points
2. Detailed information on questions on notice
3. List of documentation attached

Should there be any questions with respect to the information provided, Standards Australia would be pleased to continue assisting the Senate Committee.

Yours faithfully,

Kareen Riley Takos
Relationship Manager

1. Summary of key points

Stakeholder consultation regarding AS 3999 “*Thermal insulation of dwellings - Bulk insulation - Installation requirements*”.

- Standards Australia is currently seeking stakeholder input regarding Australian Standard AS 3999: Thermal insulation of dwellings - Bulk insulation - Installation requirements.
- The consultation is being undertaken in relation to the differing requirements for insulation installation surrounding recessed luminaires under AS 3999: Thermal insulation of dwellings - Bulk insulation - Installation requirements, clause 4.2 (e) and the Electrical Installation Standard (known as the Wiring Rules), AS/NZS 3000-2007, clause 4.5.2.3.
- Consultation is ongoing and based on feedback received, Standards Australia will decide on the appropriate course of action, which may include taking no action, withdrawing, amending or reviewing the Standard.

Development of AS/NZS 4859.1:2002 (incorporating Amendment 1, Dec 2006) ‘Materials for the Thermal Insulation of Buildings’

- Standards Australia acknowledges the development of Amendment 1 to AS/NZS 4859.1 was contentious, however, our organisation is satisfied due process was observed throughout its development leading to the successful publication of the document.
- The Australian Foil Insulation Association (AFIA) has expressly and continuously informed Standards Australia of its dissatisfaction with the outcomes of AS/NZS 4859.1 Amendment issued in 2006.
- Standards Australia took those comments very seriously and is satisfied due process was observed.

AFIA’s conflicting statements

- AFIA, despite advocating AS/NZS 4859.1 as an essential document underpinning the Home Insulation Program in February 2009, has, throughout this Inquiry, criticised the document.
- Standards Australia rejects AFIA criticism and feels strongly that there are no indications that AS/NZS 4859.1 is inappropriate.

- Standards Australia welcomes any interested parties to formally propose revision of Australian Standards. However, evidence and support from industry and government needs to accompany any new project proposal.
- Standards Australia cannot – and will not – unilaterally modify documents to suit any one interested party within an industry.

Standards Australia's role

- Standards Australia is a not for profit, non government organisation. While interested parties can fund standards development, the consensus process is uncompromised.
- Standards Australia is not a regulator; however, governments may themselves choose to reference particular Australian Standards in legislation.

2. Detailed information on questions on notice

Opening Statement

Standards Australia attaches as Appendix A, a copy of our opening Statement, which was tabled at the Senate Committee Hearing. The statement provides background to our organisation, the role of Standards in relation to the Home Insulation Program, and the consultation Standards Australia is currently undertaking.

In our opening statement, we also highlight critical points relating to the role of Standards to the Home Insulation Program, as summarised below:

AS 3999: Thermal insulation of dwellings - Bulk insulation - Installation requirements

This Standard specifies the procedures for installing bulk thermal insulation in dwellings. It does not cover methods of installation of foil insulation.

AS NZS 4859.1 Materials for the thermal insulation of buildings – General criteria and technical provisions

This is a product/material Standard relating to the labelling and thermal performance of insulation. As explained in the scope of the Standard, the Standard does not specify other requirements. Therefore, it does not include safety requirements, nor does it cover insulation installation practices.

Safety issues relating to foil insulation installation are not covered by any of the above Standards, which are referred to under the Home Insulation Program.

In our submission to the Inquiry, Standards Australia pointed out that the organisation was examining the appropriateness and currency of AS 3999-1992 “Thermal insulation of Dwellings – bulk installations – installation requirements”.

Notification received concerning AS 3999-1992

As noted previously, the consultation on AS 3999-1992 was initiated after receiving notification from the Electrical Safety Office (ESO) Queensland stating they had concerns regarding the differing requirements of AS 3999-1992 and AS/NZS 3000:2007 relating to thermal insulation and its proximity to recessed lights. The ESO recommended AS 3999-1992 be withdrawn or amended. As requested by the Senate Committee, correspondence received by the ESO is attached as Appendix B.

As a first step in determining whether or not the document should be withdrawn, Standards Australia initiated consultation with all relevant stakeholders. We needed to ensure that any action taken would be a reflection of what stakeholders believe to be appropriate.

Stakeholder Consultation

Standards Australia attaches a copy of the consultation letter, as Appendix C – and a list of the organisations that have been directly consulted or through representatives on the Technical Committee EL-001 and BD-058 as part of the exercise, as Appendix D.

As noted in Standards Australia's evidence, while our organisation is currently conducting consultation on the appropriateness of the requirements for insulation installations surrounding recessed luminaires as prescribed under AS 3999, this consultation has no impact to the Commonwealth Home Insulation Program, as the program guidelines explicitly instruct installers to comply with the requirements of the Wiring Rules for installations surrounding recessed luminaires.

In addition, following outcomes from an industry meeting held in October 2009, a decision was made that downlight covers would be mandatory under the Home Insulation Program.

Standards development process explained

Australian Standards are developed according to a consensus model, which requires rigorous, transparent and unbiased processes, ensuring that all competing interests are heard, that differing points of view are considered and that a consensus outcome is reached. The strength, robustness and authority of an Australian Standard is underpinned by those principles.

Standards Australia's Technical Committees and Balance of Representation

Technical committees are the foundation of our standardisation process. They consist of individuals who are nominated by organisations that represent the views of large groups of interested and affected parties with a common interest. Each committee has specific terms of reference prescribing the subject areas that are the responsibility of that committee.

By ensuring that the committees maintain a balance of interests in the Australian and New Zealand communities, Australian Standards retain their widespread acceptance and relevance.

The composition, or make-up, of a technical committee is termed as its constitution. Every technical committee has a formal constitution and the policies under which committees are constituted and managed are determined by Standards Australia's Standards Development Committee (SDC). Committee size is a compromise between a reasonably broad base of representation and the need to restrict membership to workable numbers.

Technical committees that are responsible for writing Standards must be composed of individuals who are nominated by organisations that represent the views and notions of large groups of affected parties.

Consequently, technical committees are constituted on a representative basis (peak organisation level), rather than by asking individuals or companies to participate. Members of a technical committee are selected by 'nominating organisations' - organisations that nominate their representatives to the committee - to represent the views of large groups of interested and affected parties with a common interest. This ensures that there is accountability and continuity in representation.

In order to achieve the cornerstones of standardisation—balance, transparency and consensus—a technical committee represents a balanced cross-section of interests that would potentially use, be influenced by, or have an interest in the Standard.

Generally, each technical committee has a balance of the main divisions of Standards users. These may include, but are not limited to the following:

- Consumers and community interests;
- Employer representative bodies;
- Government organisations;
- Industry, professional and technical associations;
- Manufacturer, importer and supplier associations;
- Regulatory and controlling bodies;
- Research and academic organisations;
- Testing bodies;
- Unions and employees; and
- User and purchasing bodies.

It is not the aim to have numerically equal representation from all groups on all committees; in fact, this is virtually impossible. However, major influences may be tempered by the inclusion of smaller organisations which, while only representing a small number of parties, have a major interest in the area of standardisation.

For large organisations with diverse membership, adequate provision is made in the number of positions allocated to allow a diversity of views to be 'brought to the table'.

The Consensus Process

Standards Australia has defined rules relating to the consensus process. As requested by the Senate Committee, below are further comments on consensus:

Consensus, in our process, means general agreement, characterised by the absence of sustained opposition to substantial issues by any important part of the concerned interests and by a process that involves seeking to take into account the views of all parties concerned and to reconcile any conflicting arguments.

Currently the consensus rules are:

A minimum of 67% of those eligible to vote have voted affirmatively; and

A minimum of 80% of votes received are affirmative, and

No major interest involved with the subject of the Standard has collectively maintained a negative vote.

Consensus does not mean unanimity.

Development of AS/NZS 4859.1 'Materials for the Thermal Insulation of Buildings' and Amendment 1 (Dec 2006)

Throughout the development of the original text for AS/NZ4859.1, in 2002, the BD-58 – Thermal Insulation Technical committee could not agree on test conditions for reflective insulation. Rather than hold up publication of AS/NZS 4859.1 the committee agreed to release what had been completed and continued to work on an appendix for assumptions when calculating the performance of reflective insulation.

The initial publication of AS/NZ 4859.1 in 2002 progressed smoothly with the following organisations involved on the approval of the original document:

Committee BD-058:

Acceptable Standards of Construction Committee NSW

Aluminium Foil Insulation Association

Association of Consulting Engineers Australia

Australian Building Codes Board

Australian Cellulose Insulation Manufacturers Association

Australian Glass and Glazing Association

Australian Industry Group

Australian Institute of Refrigeration Air Conditioning and Heating

Australian Wool Testing Authority

Building Research Association of New Zealand

Business New Zealand

CSIRO, Building, Construction and Engineering

CSIRO, Textile and Fibre Technology

Certification Bodies Australia

Clay Brick and Paver Institute

Concrete Masonry Association of Australia

Consumers Federation of Australia

Department of Fair Trading NSW Consumer Protection Agency

Department of Infrastructure (Victoria)

Energy Efficiency and Conservation Authority of New Zealand

Fibreglass and Rockwool Insulation Manufacturers Association of Australia

Forest and Wood Products Research and Development Corporation

Housing Industry Association

Master Builders Australia
 National Occupational Health and Safety Commission
 National Solar Architecture Research Unit (SOLARCH)
 New Zealand Employers and Manufacturers Association
 New Zealand Master Builders Federation
 Plastics and Chemicals Industries Association
 Primary Industries and Resources SA
 Royal Australian Institute of Architects
 Sustainable Energy Authority Victoria
 Thermal Insulation Contractors Association of Australia
 Timber Promotion Council
 University of Adelaide
 University of Melbourne
 University of New South Wales

After the publication of the Standard in 2002, the committee continued working to resolve the outstanding calculation criteria issues.

After considerable effort, BD-058 Committee reached a majority agreement on the assumptions to use when calculating the R-Values of reflective insulation and produced Amendment No1. These assumptions for reflective insulation were the principal reason for publication of Amendment No1.

The amendment also extended the scope of the Standard to cover ducting and pipe insulation, areas where ambiguities previously existed and standardisation was needed. The amendment contained some corrections and clarifications which improved the standard.

Despite the years of work on the draft, at the close of our ballot (vote), Standards Australia received three negative votes.

One vote was not accompanied by any reasons; two votes were accompanied by technical reasons. A meeting of BD-058 was convened to address the negative votes in July 2006. Most issues were resolved at the meeting, with the exception of one issue remaining outstanding and AFIA maintaining their negative vote. AFIA sustained its negative vote due to the agreed assumptions regarding dust on reflective surfaces.

The organisations represented on the Technical Committee at the time of the publication of the amendment were:

Aluminium Foil Insulation Association
 Association of Accredited Certification Bodies
 Australian Building Codes Board
 Australian Cellulose Insulation Manufacturers Association Inc.
 Australian Foil Insulation Manufacturers Association

Australian Greenhouse Office
 Building Research Association of New Zealand Inc.
 Business New Zealand
 CSIRO
 Consumers Federation of Australia
 Curtin University
 Energy Efficiency & Conservation Authority of New Zealand
 Engineers Australia
 Housing Industry Association
 Insulation Council of Australia & New Zealand
 Insulation Council of Australia & New Zealand
 Master Builders Australia
 New Zealand Employers and Manufacturers Association
 Plastics & Chemicals Industries Association Inc.
 Polyester Insulation Manufacturers Association
 University of Adelaide
 Thermal Insulation Contractors Association of Australia
 Wool Insulation Interests

It ought to be noted that there were two nominating organisations representing foil interests, being the Australian Foil Insulation Association (AFIA) and the Australian Foil Insulation Manufacturers Association (AFIMA). AFIMA lodged a positive vote on the Amendment of AS/NZS 4859.1.

Adherence to Standards Australia Standards Development Processes

Dissatisfied with the outcome and content of the document, AFIA suggested that Standards Australia had not followed due process in the development of the document.

The complaints from AFIA were taken into serious consideration by Standards Australia and the issue was referred to an independent expert who was asked to review the process. The report/finding was subsequently considered by the Building Standards Sector Board (BSSB), whose Membership comprises of relevant stakeholders in the Building Industry.

The review and the BSSB concluded that appropriate policies and procedures were followed in the development of the draft amendment AS/NZS 4859.1 and transparency, balance of representation and consensus were achieved in the process.

AFIA subsequently made several other submissions to Standards Australia in an attempt to influence a review of the decision. Standards Australia, being satisfied it had fulfilled its obligations by ensuring due process was followed did not accede to their requests.

As noted in evidence given to the Senate, as a rule, Standards Australia staff do not have specific technical knowledge or expertise in any subject matter included in Australian Standards. We are neutral facilitators, and the content of our document is developed and agreed upon by technical experts represented on our technical committees.

In the case of the amendment of AS/NZS 4859.1, 22 of the 23 organisations involved in the development of the amendment agreed to its content. AFIA did not.

It may be the case there is a need for further studies and research to be undertaken, outcomes of which may result in the need for the Standard to be updated. Nonetheless, without agreement between BD-058 Committee Members, Standards Australia cannot change/review the document's content on the basis of unilateral views of a group. This would go against all our established processes.

Notably, in letters sent to the Honourable Kevin Rudd, Prime Minister on 9 February 2009, by the Australian Foil Industry Association, the Association raised numerous concerns about the Home Insulation Program – one of them being that it would, I quote *“open the door to many cheap imports that would not be approved to AS/NZS4859.1 or compliant to the Building Codes of Australia (BCA)”*.

In order to mitigate such risk, AFIA suggested that the program should introduce a requirement to ensure that all products to be used comply with AS/NZS 4859.1.

It seems that in February 2009, AFIA's view was that AS/NZS 4859.1 was a document to be observed by the Commonwealth, and now the document is no longer suitable. We find it hard to reconcile this seeming endorsement with the negative statements made by AFIA to the Senate Inquiry in relation to the Standard.

Representation of AFIA at the Senate Inquiry

Standards Australia feels the criticism expressed by a number of witnesses giving evidence to the Inquiry is unfounded.

Four witnesses – all of whom criticised Standards Australia's processes – are listed on the Australian Foil Insulation Association website as AFIA's office holders:

Mr Brian Tikey – President of the Australian Foil Insulation Association
Mr Tim Renouf – Secretary/Treasurer of the Australian Foil Insulation Association
Mr Michael Bostrom - Standards Representative - Vice President of the Australian Foil Insulation Association
Prof, Richard Aynsley Ph.D - Independent Technical Advisor to AFIA of the Australian Foil Insulation Association

Attached is a copy of AFIA's contact webpage as Appendix E.

Standards Australia feels the collective comments in relation to Standards Australia's processes and reputation reflected AFIA's discontentment with the outcomes of the amendment of AS/NZS 4859.1, which was published in 2006, and is explained briefly above.

The nature of Standards development is to consolidate differing view points and interests. In some cases, despite all efforts and endeavours to conciliate differing view points on the content of Australian Standards, an interested party may not be entirely satisfied with the outcome.

Meeting with the Department of Environment, Heritage, Water and the Arts

Following the initial electrical accident in Queensland regarding insulation installation, Standards Australia was invited by Department of Environment, Water, Heritage and the Arts to attend a meeting with key industry, training and regulatory organisations, to further discuss electrical and safety issues associated with ceiling insulation.

The meeting was held on 27 October, 2009. In response to the request from the Senate Committee, Standards Australia can confirm it did not receive minutes or notes of the meeting.

Claims Standards Australia's Business Model is not conducive to the public benefit.

Standards Australia is a not for profit organisation, non-government organisation.

In the past, Standards Australia standards development operations were funded by its commercial arms, through the sale of standards and certification business. In 2003 Standards Australia divested itself of the publishing and certification business to focus on standards development. The separation was designed to avoid the potential problem or at least perception that decisions about the need for standards or priorities may be influenced by considerations about what was best for the other related commercial activities.

In 2003, Standards Australia sold its marketing, publishing, education and training, consulting and assurance services to a new company, SAI Global Limited. Standards Australia's operations are now partly funded via the return on investment from the sale of those assets, royalties received by the sale of material licensed to SAI Global and direct contributions from stakeholders wishing to develop specific Australian Standards.

It ought to be highlighted, however, that the mechanism of funding for development of an Australian Standard does not alter the due process required for the successful publication of that Australian Standard. The principles underpinning our documents are observed irrespective of third-party funding for the process.

Furthermore, any party engaging Standards Australia to develop an Australian Standard needs to demonstrate the document will have a Net Benefit to the Australian community, and that the proposal for the document has broad stakeholder support, including from those with different interests. Sponsors of the development of Australian Standards, which include Government and Industry, are fully aware that before a document can become an Australian Standard® it must be approved by consensus by the relevant technical committee.

Standards Australia cannot guarantee that consensus will be achieved as this is a matter for the relevant technical committee.

Summary

Integrity of the development of AS/NZS 4859.1

The strength, robustness and authority of an Australian Standard relies heavily on Standards Australia's rigorous, transparent and unbiased Standards development processes.

Standards Australia takes its Standards Development process integrity very seriously. Following extensive review of our processes, our organisation is confident that the development of Amendment 1 to AS/NZS 4859.1 followed due process.

Safety issues relating to Foil Insulation Installation

It is important to note that AS/NZS 4859.1 is a product/material standard relating to the labelling and thermal performance of insulation and does not prescribe safety measures relating to installation of insulation of any kind. With respect to AS 3999, while this is an insulation installation Standard, which prescribes safety installation of bulk insulation, it does not cover reflective foil insulation.

Commitment to the relevance and currency of our Australia Standards

Standards Australia is committed to ensuring its documents are appropriate, thoroughly address performance and safety issues and provide a Net Benefit to the Australian community.

Standards Australia will continue assisting the Senate Inquiry and, if requested and supported, will undertake to work with the government, industry and the community to facilitate the development/maintenance of nationally consistent standards-based solutions.

This could entail new voluntary Australian Standards or the facilitation of reviews or changes to relevant Australian Standards to further improve the level of safety and/or performance of insulation installations.

3. List of documentation attached

Appendix A - Copy of Standards Australia's Opening Statement

Appendix B – Advice received by a representative from the Electrical Safety Office (Queensland) with respect to AS 3999

Appendix C – Copy of letter of consultation with respect to AS 3999

Appendix D – Organisations that were consulted as part of the exercise, either directly or through Representatives on the Technical Committees BD-058 and EL-001.

Appendix E – Copy of AFIA's contact webpage

Appendix A

Statement

By way of background, Standards Australia is recognised by the Commonwealth Government as the peak non-government standards body in Australia through a memorandum of understanding with the Commonwealth. We are a not-for-profit organisation that facilitates the development of Australian standards by working with government, industry and the community. We also promote excellence in design and innovation through the Australian International Design Awards. We respond to national needs for contemporary internationally aligned standards that deliver net benefit to Australia.

Standards Australia is the national member of a number of international and regional bodies; from a regional body perspective, the Pacific Area Standards Congress, internationally the International Organisation for Standardisation, the International Electrotechnical Commission and also the International Council of Societies of International Design. We also provide support to the government for the APEC Sub-committee on Standards Conformance and to business through the APEC Business Advisory Council.

We have a catalogue of approximately 7000 Australian Standards. Standards Australia has a policy of basing Australian Standards on international standards to the maximum extent feasible and to apply the requirements of the World Trade Organisation agreement on technical barriers to trade as a benchmark. We hold secretariats of a number of ISO and IEC committees. We hold the secretariats of four main committees, 17 subcommittees and 79 working groups. We also administer funding from the Commonwealth Department of Innovation, Industry, Science and Research for the purpose of subsidising travel costs of Australian representatives to attend international committee meetings.

It is important to note that Standards Australia facilitates the development of Australian Standards according to a consensus model, which requires rigorous, transparent and unbiased processes, ensuring that all competing interests are heard, that differing points of view are considered and that a consensus outcome is reached. The strength, robustness and authority of an Australian Standard is underpinned by those principles.

Many Australian Standards are developed for the purposes of legislative adoption, and about one-third of those 7000 standards are referenced in legislation. Australian Standards are a valuable tool for regulators wishing to prescribe consumer protection requirements for goods or classes of goods which may pose risks to consumers.

Australian Standards set specifications and guidelines to ensure the quality, safety, reliability and consistency of products and services. These specify the effort required of consensus groups such as Technical Committees under the authority of

Standards Australia to achieve consensus and ensure the interests of all stakeholders are considered during the development of an Australian Standard.

We also have a memorandum of understanding with Standards New Zealand. We develop joint Australian-New Zealand standards and we have joint committees to develop that work. About 35 per cent of our suite of 7000 standards are joint with New Zealand, and about 80 per cent of their catalogue of standards are joint with Australia.

With respect to the Commonwealth's Home Insulation Program (**HIP**), under its guidelines, ceiling Insulation must comply with three Australian Standards:

AS 3999-1992 'Thermal insulation of Dwellings – bulk installations – installation requirements', which prescribes procedures for installing bulk thermal insulation in dwellings. This standard also has a section which prescribes requirements for the installation of bulk insulation surrounding electrical cables.

AS/NZ 4859.1:2002 (incorporating Amendment 1, Dec 2006) 'Materials for the Thermal Insulation of Buildings' This document covers thermal insulation materials that may be used in buildings. The document is also a primary reference under the Building Code of Australia (BCA).

The third Standard referenced under the HIP is **AS/NZS 3000-2007**, "Electrical installations (known as the Australian/New Zealand Wiring Rules)". The Wiring Rules sets out the safety requirements for the design, construction and testing of electrical installations in all types of buildings, structures and premises.

These documents were developed by two Standards Australia technical committees:

BD-058 Thermal Insulation developed AS3999 and AS/NZS 4859.1; and
EL-001 Wiring Rules Committee, being responsible for the Wiring Rules.

Standards Australia's Technical Committees have broad and balanced representation from all interested groups concerning the documents developed by them. Members are consumer representatives, industry professionals, government representatives and academics who come together across Australia to consider how a product or system should perform and how it should be made.

It is important to highlight that Standards Australia has processes in place to ensure due process for the development of Australian Standards. We are neutral facilitators, and the content of Australian Standards is developed and agreed upon by technical experts, who are volunteers in the technical committees. Under the Standards Development process, general Members of the Public also have the opportunity to make comments on every draft Australian Standard.

Under the HIP guidelines, installers are required to comply with **AS 3999-1992** but are explicitly directed to substitute the requirements of this Standard with the Wiring Rules requirements for the minimum clearance distances from recessed luminaires.

In essence, the Wiring Rules (AS/NZS 3000:2007) addresses the issue of downlights in ceilings by providing 4 alternatives of compliance for installation of insulation in the proximity of downlights, which minimize temperature rise and prevent the risk of fire.

Under those alternatives, in summary, it is permissible to use:

- a. Luminaires certified by the manufacturer to permit contact with combustible materials or to permit enclosure or covering by thermal insulation material; or
- b. Luminaires installed within a suitable fire-resistant enclosure; or
- c. Luminaires installed with clearances from combustible and thermal insulating material as specified by the manufacturer; or
- d. Luminaires installed with the **default** clearances from combustible and thermal insulating material, according to figure 4.7 under the Wiring Rules. These clearances are 200 mm for a halogen lamp in a luminaire

Under the Wiring Rules requirements, installers can choose to comply with one of these options, but if options a, b or c are not met, a **default** minimum 200 millimeters clearance from the recessed luminaire must be applied.

Under AS 3999 (Clause 4.2 (e)) the requirement is for a minimum 25 millimeters clearance.

In discussions with stakeholders, concerns were raised over the different requirements for insulation installation surrounding recessed luminaires, and due to such differences, electrical and technical safety regulators suggested AS3999 should be withdrawn.

As part of the consideration as to whether or not the document should be withdrawn, Standards Australia initiated consultation with all relevant stakeholders as to the currency and appropriateness of our Australian Standard for 'Thermal insulation of Dwellings – bulk installations – installation requirements' (AS 3999-1992).

Our organisation needed to ensure that whatever actions would be taken, would be a reflection of what stakeholders believe it to be appropriate.

After informal discussions with stakeholders, in letter sent to EL-001, BD-058 Committee Members and other targeted organisations, we highlighted possible options for AS 3999 as being to:

1. Withdraw the standard;
2. Amend AS 3999-1992 to substitute clause 4.2 (e) with the requirements on the Wiring Rules – AS/NZS 3000 clause 4.5.2.3;
3. Undertake a comprehensive review of AS 3999-1992, updating the standard where needed, including establishing tested and scientifically based requirements for safe insulation installation around recessed luminaries, which outcome might not necessarily be the same as provisions under the Wiring Rules; or
4. Take no action.

Standards Australia's position was that if there was no strong stakeholder support for an alternative solution, we would withdraw the standard. Consultation is still underway and we have requested stakeholder feedback by **March 5th**.

There are 2 important points on this issue:

One is the consideration of safety versus energy efficiency. The ± 450 mm diameter penetration that results when the default AS/NZS3000 clearance is used significantly reduces the thermal performance of the insulation. Evidently, safety should always be priority, but if thermal performance is reduced significantly, a much better practice outcome would be to safely allow a reduced penetration area around recessed luminaries.

The goal should be to get the balance right, by stipulating requirements that provide for optimal thermal performance while posing no risk of fires.

The second point to be made is that while Standards Australia is currently conducting consultation on the appropriateness of the requirements for insulation installations surrounding recessed luminaires as prescribed under AS 3999, this consultation have no impact to the Commonwealth Home Insulation Program, as the program guidelines explicitly instruct installers to comply with the requirements of the Wiring Rules for installations surrounding recessed luminaires.

In addition, following outcomes from an industry meeting held in October 2009, a decision was made that downlight covers would be mandatory under the HIP.

Appendix B

Note: This attachment contains email addresses that should be treated as confidential

Kareen Riley Takos**Subject:** FW: Thermal Insulation and AS 3999-1992**From:** Gibson, Michael J (ESO) [mailto: [REDACTED]]**Sent:** Thursday, 3 September 2009 12:29 PM**To:** Hoare, Charles (DTEI); Gerry Haddad; [REDACTED]**Subject:** Thermal Insulation and AS 3999-1992

Gerry

The Electrical Safety Office (ESO) has concerns regarding the requirement of the following standard (AS 3999-1992 Thermal insulation of dwellings- Bulk insulation-Installation) being in conflict with AS/NZS 3000:2007. The electrical safety issues relate to thermal insulation and it's proximity to recessed lights, AS 3999 CL 4.2 states a distance not less than 25mm around the perimeter of the down light and refers to figure 4.5.

Due to the Federal Government stimulus package and green house gas initiative there has been an increase in house holders having insulation installed at their property. The ESO are investigating 2 recent incidents where fires have occurred after insulation has been installed, one insulation installer has stated his business complies with the requirements of AS 3999:1992. It is understood insulation installers have an obligation under our Electrical Safety Legislation and the ESO has provided this information to the relevant associations. However this standard appears to be the primary document referenced within the insulation industry and may confuse stakeholders.

The ESO recommends this standard be removed from service or amendments are urgently drafted to align with the requirements of the Wiring Rules in relation to thermal insulation and recessed lights.

Michael Gibson
Regional Manager Compliance
Electrical Safety Office
Dept Justice and Attorney General
32370277

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Appendix C

Date: 14 January 2010

To: EL-001 – Wiring Rules Committee Members

From: Standards Australia

Subject: Feedback on currency of AS 3999-1992 Thermal insulation of Dwellings – bulk installations – installation requirements

Dear Members

You may be aware of recent issues associated with the installation of insulation in Australia, including reports of fires and industrial accidents across all States and Territories.

We are writing to you to seek your input as to the currency and appropriateness of our Australian Standard for 'Thermal insulation of Dwellings – bulk installations – installation requirements' (AS 3999-1992). Australian Standards are living documents and we have recognised the need to examine the currency and appropriateness of our technical documents which relate to insulation installations.

With particular respect to electrical installations, concerns have been raised in relation to the differing requirements for insulation installation surrounding recessed luminaries under AS 3999-1992, clause 4.2 (e) and the Electrical Installations Standard (known as the Australian/New Zealand Wiring Rules), AS/NZS 3000-2007, clause 4.5.2.3.

Under the Commonwealth's Home Insulation Program guidelines, installers are explicitly directed to substitute the requirements on the Australian insulation installation Standard (AS 3999-1992) with the Wiring Rules (AS/NZS3000) requirements for the minimum clearance distances from recessed luminaries. We understand that this approach has also been favoured by several Regulatory authorities.

We have had recent contact with a number of stakeholders in relation to AS 3999-1992 who have variously indicated that we should either:

1. Withdraw the standard;
2. Amend AS 3999-1992 to substitute clause 4.2 (e) with the requirements on the Wiring Rules – AS/NZS 3000 clause 4.5.2.3;
3. Undertake a comprehensive review of AS 3999-1992, updating the standard where needed, including establishing tested and scientifically based requirements for safe insulation installation around recessed luminaries, which outcome might not necessarily be the same as provisions under the Wiring Rules; or

4. Take no action.

Such decisions can only be made by us after we have conducted necessary consultation with relevant stakeholders. It is in that context which we are seeking the considered views of your Nominating Organisation on the possible amendment or revision of the document.

Following stakeholders feedback, the matter will be referred to Standards Australia Production Management Group (PMG) for discussion with respect to the withdrawal or possible pathways for reviewing the document.

Standards Australia proposes to withdraw AS 3999-1992 "Thermal insulation of Dwellings – bulk installations – installation requirements" unless there is strong stakeholder support for an alternative solution.

Members representing Nominating Organisations on the Standards Australia Technical Committee BD-058 - Thermal Insulation and other identified stakeholders are requested to comment on the proposal for withdrawal and submit their comments to Standards Australia.

I kindly request that your organisation consider and conduct any necessary consultation with your stakeholders in relation to the possible courses of action proposed above and make your position known to me in writing by no later than **March 5, 2010**.

Please also provide contact details of the appropriate person with whom we can follow up issues in the future on this matter.

Please do not hesitate to contact Kareen Riley Takos, relationship manager on (02) 9237 6047, or by email at kareen.rileytakos@standards.org.au should you wish to discuss any aspect of this matter.

Yours sincerely

Colin Blair
Acting CEO

Appendix D

AS 3999 - Stakeholder Consultation

Aluminium Foil Insulation Association
Association of Accredited Certification Bodies
Australian Building Codes Board
Australian Cellulose Insulation Manufacturers Association Inc
Australian Council of Trade Unions
Australian Foil Insulation Manufacturers Association
Australian Industry Group
BRANZ
Communications, Electrical and Plumbing Union
Consumers' Federation of Australia
CSIRO Manufacturing & Materials Technology
CSIRO Textile and Fibre Technology
Curtin University of Technology
Department of the Environment, Water, Heritage and the Arts
Electrical and Communications Association (Queensland)
Electrical Regulatory Authorities Council
Electrical Safety Office (QLD)
ElectroComms & Energy Utilities Industries Skills Council
Energy Networks Australia
Energy Safe Victoria
Energy Safety (WA)
Engineers Australia
Housing Industry Association
Institute of Electrical Inspectors
Insulation Council of Australia and New Zealand
Lighting Council of Australia
Master Builders Australia
National Electrical and Communications Association
NSW Office of Fair Trading
Office of the Technical Regulator (SA)
Plastics and Chemicals Industries Association Incorporated
Polyester Insulation Manufacturers Association
Property Council of Australia
Safe Work Australia
The Insulation Contractors Association of Australia (TICA)
The University of Adelaide
Thermal Insulation Contractors Association of Australia
Wool Insulation Interests
Workplace Standards Tasmania

Appendix E

**CONTACT AFIA**

AFIA is an industry organisation managed through a member's core executive.

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