

CONNECTIONS

Electrical, Gas, Plumbing, Building

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Contents

Foreword from the Minister 3

Message from Executive Director 4

Condensation regulatory update..... 5

Building Australian Standards update..... 6

Australian Institute of Architects - industry partnerships 7

Building Confidence Report – Tasmania’s position 8

What you need to know for NCC 2019 - ABCB..... 10

Master Builders Tasmania..... 11

National Construction Code 2019..... 12

CPD requirements for licensed practitioners..... 14

Housing Industry Association - 2019 the year of planning reform..... 15

TPS/PVC cables in contact with polystyrene products..... 16

Overhead line design 16

AS/NZS3000:2018 Install RCDs on all final sub circuits.....17

Your Voice - Why it is important to submit a CEC..... 18

Is your earth electrode compliant?..... 18

Safe battery systems and power conversion equipment 19

Flued space heaters, range hoods and extraction fans 19

Gas supply point issues..... 20

AS/NZS 5601.2:2013 Amendment 3 2018 21

What is CPD Toolbox? - MPAT 22

Master Plumbers Association Tasmania - flue spillage testing..... 22

Open flued gas appliance recalls..... 23

Are your clothes safe? - WorkSafe..... 24

NBN + lift phone services - WorkSafe 24

BSI New Kids on the Block..... 24

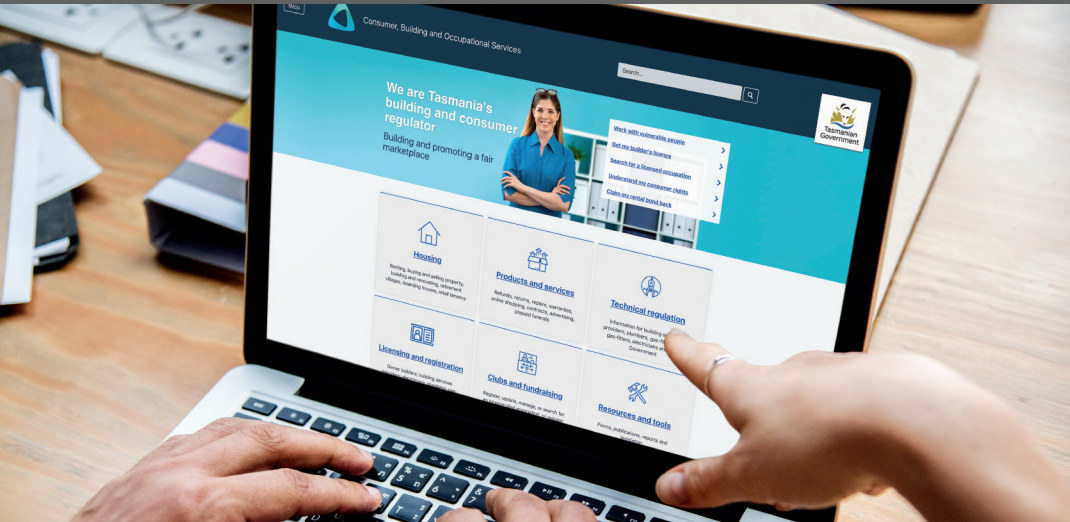
GTRC Gas Appliance Certification Scheme Rules and Gas Compliance Mark 25

AS 3814: 2018 updates..... 25

Plumbing Code of Australia (PCA) 2019 - reference documents..... 26

Changes to technical standard for water and sewerage infrastructure 27

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Your comments and contributions are welcome. The editorial committee reserves the right to publish only those items considered relevant to the scope of CONNECTIONS.

Reader correspondence should be addressed to:

CONNECTIONS
PO Box 56
Rosny Park TAS 7018
Phone: 1300 654 499
Email: cbos.info@justice.tas.gov.au
Internet: www.cbos.tas.gov.au

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Minister's Foreword

Seaport pedestrian bridge, Launceston Tasmania. Provided by City of Launceston.

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Foreword from the Minister

As Minister for Building and Construction, I am proud to say that Tasmania continues to experience record highs in the level of construction activity across the State. This extraordinary momentum in the industry is not only good for the sector, but it is also helping to underpin our broader economic prosperity and provides confidence for Tasmanian families and communities.

These results have not happened by accident. The Hodgman Liberal Government has been working hard to ensure we have the right conditions in place to stimulate more construction, create jobs and boost the economy – not just in our major cities, but also in regional Tasmania.

While we don’t necessarily measure our success by the number of cranes on the skyline, up until recently there were six tower cranes established in Hobart’s CBD, with many more developments in the pipeline, particularly with the Hobart City Deal now signed.

Northern Tasmania is also seeing a construction surge, with developments such as the CH Smith redevelopment, the Silo Hotel and Hotel Verge, all revitalising the economy and creating jobs.

Devonport is being transformed by the Living City development, and the level of activity in commercial, industrial and residential construction is a clear reflection of the growth in our economy under the majority Hodgman Liberal Government.

On most measures across the Building and Construction portfolio, Tasmania has been leading the nation. This is particularly evident in the strong growth in building approvals, dwelling commencements and new residential construction, as well as major home renovations State-wide.

The Government is proud of these achievements, and will continue to support this growth by helping to ensure that we have a skilled workforce which can meet the growing demand in Tasmania.

The success of this sector benefits all Tasmanians, with more homes, better infrastructure and importantly, more jobs.

This is why it is important to be aware of the significant changes in the National Construction Code (NCC) for 2019.

The changes relate to all three volumes of the NCC, including energy efficiency, fire safety, improved readability and quantification of the performance requirements.

Importantly, the changes are designed to make our built environment safer, more efficient and have a greater ability to determine compliance with the NCC.

I encourage everyone in industry to become familiar with the changes, with information on and additional guidance materials readily available from the Australian Building Codes Board website: www.abcb.com.au.

I know that the industry is committed to making our built environment safer, both now and into the future, and all participants will embrace the changes to the National Construction Code.

By doing so, we will see Tasmania and its critical building and construction industry continue to thrive.

Sarah Courtney MP
Minister for Building and Construction





Message from the Executive Director

NCC 2019

In 2019, Tasmania will see a significant change to building since the implementation of the *Building Act 2016*, with the release of a National Construction Code (NCC) updated on a three year amendment cycle.

NCC 2019 introduces a wide range of changes for energy efficiency, fire safety and particularly plumbing.

In developing the new Code there has been a strong focus on readability and the quantification of performance requirements. The aim is to achieve better compliance with the Code, improving compliance when using alternative solutions, as well as helping to reduce misinterpretation.

Importantly, NCC 2019 will be available free and online. Easier language and a more user-friendly format has been used in all three volumes. It will be much easier to use with enhanced navigation and a range of new features. Access to the digital version is available at www.abcb.gov.au.

Condensation in Tasmanian homes – a new guide for designers

Condensation and mould in cool climate homes has been a problem for some time. In Tasmania, one of the most important set of changes in NCC 2019 is the introduction of some

condensation control requirements. This is the start of work that Tasmania has promoted for a number of years now. CBOS has supported research by the University of Tasmania to further improve and develop the 'Condensation in Buildings – Tasmanian Designers' Guide – Version 2'. This Guide is now available on our website at www.cbos.tas.gov.au

Changes to the Building Act 2016

There have also been some changes to the *Building Act 2016* as a result of an amendment passed late last year. Builders, building surveyors and permit authorities provided feedback after the initial introduction of the Act in 2017 and we have used that feedback to make these changes.

The changes affect:

- building permit expiries and extensions
- owner-builder licences and
- some conditions that will not trigger a full upgrade of a building under section 53.

Nationally, we are working on implementing the Building Confidence Report recommendations released last year. The focus of this report is to strengthen the compliance and enforcement of building regulations in a nationally consistent way.

We are also reviewing the recommendations from the Murray Report into Security of Payments to see if there is a need to make changes to our framework.

Professional indemnity insurance for building surveyors is another important issue. Tasmania is working with other jurisdictions on where regulators can provide greater understanding to the insurance industry to influence change.

Locally, we are continuing to develop and refine the building framework by consulting and updating industry stakeholders. Another round of forums for building surveyors and permit authorities will be held in June.

So it is important to keep up-to-date by regularly visiting our website at www.cbos.tas.gov.au and joining our Facebook page at Building in Tasmania where we will provide notifications of updates.

Andrew Goldsworthy
Acting Executive Director



Condensation regulatory update

New requirements in the National Construction Code

The National Construction Code (NCC) 2019, becomes mandatory on 1 May 2019, and has new provisions for condensation management. They aim to help address the health and structural problems which can occur as a result of condensation in buildings. This is the first time the NCC has had requirements aimed at minimising condensation.

The new requirements apply to class 1 buildings, sole occupancy units in class 2 buildings and class 4 parts of a building. This means the requirements are:

- in Volumes One and Two, and
- are the same across both volumes.

Performance requirement

The performance requirement is that risks associated with water vapour and condensation must be managed to minimise their impact on the health of occupants (see FP6.1 in Volume One and P2.4.7 in Volume Two).

Verification method

There is a verification method under which compliance with the performance requirement can be demonstrated when modelling which assesses the effects of factors like indoor and outdoor temperature and rain absorption to determine that moisture will not accumulate within the building envelope. (see FV6 in Volume One and V2.4.7 in Volume Two).

Deemed-to-Satisfy provisions

The Deemed-to-Satisfy provisions are contained in Part F6 of Volume One and Part 3.8.7 of Volume Two. Under these provisions, pliable building membranes installed in external walls in certain climate zones (including Tasmania) must be vapour permeable. A revised version of AS/NZS 4200:2017 has been referenced which includes new installation practices and product types for pliable building membranes and underlays. There are also minimum flow rates for exhaust systems in kitchens, bathrooms and laundries, and mandatory ventilation in roof spaces.

This is the first stage of NCC amendments for addressing condensation issues – further requirements are proposed for the NCC 2022.

New Designers' Guide

Condensation is a particular problem in Tasmania due to our cool climate. CBOS has recently released an updated Designers' Guide with additional strategies for minimising condensation.

This Guide is a result of ongoing research by the University of Tasmania School of Architecture and Design on the risk of condensation in Tasmanian buildings, a project funded by CBOS. The most recent research focused on the risk of condensation in 'code-compliant' wall and roof systems.

The Guide features strategies and example designs of how to minimise condensation in roofs, walls and subfloors in homes.

The recommendations in the Guide exceed the requirements in the NCC 2019. However, research has found these extra steps are needed to properly address condensation issues in cool climates like Tasmania.

Ongoing research

The CBOS-funded research project by the University of Tasmania is ongoing. The latest stage of the research focuses on how Tasmania can achieve energy efficient and healthy buildings.

The research will:

- examine changes in construction methods over the past 20 years and
- test the hypothesis that these changes may have inadvertently led to an increase of condensation and mould in buildings.

Researchers then plan to carry out simulations to inform guidance on climatically appropriate construction methods to achieve energy efficient homes in Tasmania.

You can view the latest Condensation in Buildings – Tasmanian Designers' Guide - Version 2 on our website at www.cbos.tas.gov.au

We will keep you updated as UTAS' research progresses to help industry in building comfortable, compliant and healthy homes for Tasmanians.



Australian Standards update

The National Construction Code (NCC) references a large number of Australian Standards which set out detailed technical requirements for building design and construction. These Standards are developed and updated by Standards Australia.

On 1 May 2019 all Australian states and territories will adopt the NCC 2019. A number of new and amended Australian Standards will start as they are referenced in the new NCC. Volume One references 126 Standards, and Volume Two references 90 Standards (including parts). Here are some of the key changes to the Standards referenced in Volumes One and Two of the NCC 2019.

Structural standards

AS 3600:2018 Concrete structures

Australian Standard (AS) 3600 is the Standard for concrete structures. Under the 2018 edition which is referenced in the NCC 2019, there are changes to:

- strength and analysis
- durability and testing
- fire resistance
- construction tolerances and
- detailing of concrete components.

There are also new provisions for:

- fibre reinforced concrete
- new shear models and
- performance during earthquakes.

AS 3700:2018 Masonry structures

Under AS 3700:2018 for masonry structures there are amended requirements around:

- grouted masonry compressive strength
- compression design for reinforced masonry under concentrated loads and
- durability and design for wall ties.

There are new provisions for:

- stack bonded masonry
- fire resistance
- wall ties
- connectors and
- accessories.

AS/NZS 2327:2017 Composite structures; composite steel-concrete construction in buildings

Major changes to AS/NZS 2327 for composite structures include:

- increasing the maximum compressive cylinder strength of concrete to 100MPa and
- raising the maximum tensile yield strength of steel to 690MPa.

New provisions include:

- the design of composite slabs using profiled steel sheeting
- design of composite beams, columns and joints
- system behaviour of floor design, fire design and earthquake design.

AS/NZS 4600:2018 Cold-formed steel structures

AS/NZS 4600:2018 for cold-formed steel structures has new provisions for the direct strength method of design, mainly around the area of shear design and shear interaction. Other new provisions include:

- advanced analysis of portal frames
- new connection types such as power-actuated fasteners
- new rules for fire design and
- computer analysis methods.

AS 5216:2018 Design of post-installed and cast-in fastenings in concrete

AS 5216:2018 is a new Standard for post-installed and cast-in fastenings in concrete and supersedes SA TS 101:2015. The Standard was developed to address critical safety areas related to anchorage into concrete.

Fire standards

AS 3959:2018 Construction of buildings in bushfire-prone areas

AS 3959:2018, the Standard for buildings in bushfire-prone areas, has seen changes in:

- testing criteria
- site assessments
- protection of open sub-floor spaces and
- weather strips for garages.

The new provisions in AS 3959 include new building materials and technologies and increased options for existing materials.

AS 1670:2018 Fire detection, warning, control and intercom systems - system design, installation and commissioning

AS 1670:2018 for fire systems has had changes in Parts 1, 3 and 4.

Changes in Part 1 include:

- updates to product standards
- international harmonisation
- removal of duplication with AS 1668.1 for smoke detection and control and incorporating false alarm mitigation.

Part 3 has incorporated changes in technology and use of new telecommunication materials.

In Part 4 Visual Alarm Devices have been replaced by Visual Warning Devices.

AS 5113:2016 Classification of external walls of buildings based on reaction-to-fire performance

AS 5113:2016 has a new title. The Standard's scope has been revised to clarify its intended use and application under the NCC verification method.

Building materials

AS 1562:2018 Design and installation of metal roof and wall cladding

Part 1 of AS 1562:2018 for metal roof and wall cladding has had changes to design, installation and testing and has been aligned with revised loading standards. There are several new provisions including:

- corrosion resistance
- minimum roof slopes
- documentation of the design of cladding systems and
- flashing and how to fasten flashing.

AS 4200:2017 Pliable building membranes and underlays

Changes to AS 4200:2017 for pliable building membranes and underlays include:

- installation practices
- performance of thermal control and
- labelling requirements for pliable building membranes and underlays.

There are provisions for:

- new products available on the market
- new installation methods
- guidance around thermal, water and vapour control and
- guidance on safe work procedures.

AS/NZS 4859:2018 Thermal insulation materials for buildings

AS/NZS 4859:2018, the Standard for thermal insulation materials for buildings, has been restructured and split into two parts. Part 1 covers general criteria and technical provisions for thermal insulation materials, and Part 2 covers design.

Some of the new provisions cover:

- determination and labelling of thermal performance
- new insulation materials
- the effect of aging on insulation materials
- thermal resistance calculations and
- conversion coefficients.

More information

You can view a list of all the amendments to Australian Standards in the NCC 2019 in Schedule 4 at the end of each volume. The NCC 2019 is available on the ABCB website www.abcb.gov.au

To find out more about Australian Standards go to www.standards.org.au

Industry partnership providing insightful education

An industry partnership between University of Tasmania's Architecture & Design program, Master Builders Tasmania (MBT) and the Tasmanian Chapter of the Institute of Architects (the Institute), has provided architecture students with an insight into life on a construction site.

Over the past three years, the Construction Industry Work Experience Program has partnered over 20 students with construction firms across the state for them to experience life on the other side of the fence. The two-week placement sees students gaining insight into all facets of work in a construction company, from project administration, safety and document control to site and construction management.

The program has been well received by both students and construction firms alike and provides valuable cross-pollination and real-life understanding about the processes that bring designs to a tangible, built outcome. 2018 participant, Ben Millington, who spent his placement with Hansen Yunken, says of the experience, 'over all I really can't put into words the extent of the knowledge I have gained from this incredible opportunity. Every conversation with every exceptional individual I have walked away having learnt something...'

The Institute values the continued partnership with UTAS and MBT. Says Institute Tasmanian Chapter Executive Director, Jennifer Nichols, 'the benefits of this program will only strengthen the building and construction industry as a whole'.





Building Confidence Report – Tasmania's position

In mid-2017, the Building Ministers' Forum (BMF) commissioned experts Peter Shergold and Bronwyn Weir to conduct an assessment of compliance and enforcement systems in Australia's building and construction industry.

Shergold and Weir examined issues such as:

- practitioner licensing and competence
- education and training
- inspection regimes and auditing across Australia.

They made 24 recommendations for improving compliance and enforcement practices which affected the implementation of the National Construction Code (NCC). Their findings were published in early 2018 in the Building Confidence Report.

Tasmania fares very well in light of the recommendations as our building and licensing framework was reviewed extensively in 2015-2016. This review led to the new *Building Act 2016* and amended *Occupational Licensing Act 2005*. The recommendations in the report are discussed in broad categories.

Recommendations 1 to 4: Registration and training of practitioners

These recommendations are around ensuring there is a consistent approach to practitioner accreditation and compulsory Continuing Professional Development (CPD).

Tasmania meets these recommendations. National Australian Qualifications Framework levels are specified as the benchmark for new licence applicants. CPD has been compulsory in Tasmania for building practitioners since 2004 and for all plumbing practitioners since 2016.

Some areas were identified for review including:

- new entry pathways for building surveyors and
- licensing for installation and maintenance of fire safety systems.

Recommendations 5 to 7: Roles and responsibilities of regulators

The focus of these recommendations is ensuring that regulators collaborate to improve regulatory oversight and that there are broad audit powers and a proactive audit strategy in place.

Tasmania does well here by collaborating with stakeholders when CBOS proposes new Determinations or guidelines. Councils, building surveyors and the Director of Building Control have strong compliance powers to enter premises and seize documents as part of carrying out an audit. CBOS has an audit strategy which is available on our website at www.cbos.tas.gov.au There are also audit strategies in place for building surveyors and commercial buildings.

Recommendation 8: Role of fire authorities

This recommendation is that fire authorities are engaged with early if a design affects fire safety matters.

Under the *Building Act 2016*, the Chief Officer of the Tasmanian Fire Service (TFS) is a reporting authority. This means if building work impacts on fire safety features of a building, the TFS is provided with copies of the designs. The TFS can comment on the impact of the proposed work on their ability to respond to a fire. The building surveyor will take this advice into account in assessing the designs. The TFS can appeal if their advice is not implemented.

Recommendations 9 to 11: Integrity of private building surveyors

The focus of these recommendations is ensuring building surveyors are subject to standards to ensure that their important statutory role is carried out with integrity.

Tasmania has a Code of Practice for building surveyors which sets the standards of conduct and professionalism expected of building surveyors. It covers requirements such as:

- maintaining a satisfactory level of competence and
- avoiding a conflict of interest while engaged as a building surveyor.

There are provisions in the *Building Act 2016* to ensure that building surveyors cannot be dismissed or resign without permission from the Director of Building Control in certain circumstances. Building surveyors' work is audited by CBOS, which has strong compliance powers to use where necessary.

Recommendation 12: Collecting and sharing building information and intelligence

This recommendation is that jurisdictions have central databases for managing information about works so that it can be shared and inform regulatory efforts.

In Tasmania, there are record keeping requirements in the *Building Act 2016* to ensure that councils keep regulatory documents on file for a specified time period. There is provision for certain people to access these documents.

CBOS is developing an electronic system for submitting approval applications for works. This will help to facilitate a central database of building information.

Recommendations 13 to 17: Adequacy of documentation and record keeping

These recommendations focus on ensuring that designers are obliged to prepare designs which:

- comply with the NCC and
- provide adequate documentation to enable performance solutions to be assessed and reviewed by third parties.

The *Building Act 2016* requires designs to be prepared in accordance with the NCC. The designer has to make a certification to this effect on an approved form. Under recent amendments to the Act, if a design includes a performance solution the designer must provide a method of assessment to ensure that the performance solution is likely to comply with the NCC.

In terms of third party review, this occurs:

- by the Tasmanian Fire Service if the design affects fire safety features, or
- by an Environmental Health Officer if the work is on a food premises.

Aspects of a design which are outside of a designer's expertise are certified by a third party such as an engineer for structural aspects of a design.

Recommendations 18 to 19: Inspection regimes

Mandatory onsite inspections are recommended for building works.

In Tasmania there are mandatory inspections for all high risk (permit) building work. Inspections of notifiable work are at the discretion of the building surveyor and can be specified on a Certificate of Likely Compliance.

Recommendation 20: Post-construction information management

Under this recommendation, commercial buildings should have maintenance manuals to pass on to successive owners when a property is sold.

Tasmania is achieving this to an extent as commercial buildings are required to have a Schedule of Maintenance which lists the essential building services and how often they have to be maintained.

Recommendation 21: Building product safety

This recommendation is about establishing a compulsory product certification system for high-risk building products.

The Director of Building Control has issued a Determination on high risk building products which provides a product accreditation process. Products which must be accredited are:

- aluminium composite panels with a polyethylene core used as external building cladding and
- polystyrene used as external insulation or a rendered system.

The restrictions apply to Type A and B construction buildings. Tasmania also supports a national approach to accrediting high risk products.

Recommendations 22 to 24: Implementing the recommendations above

The final recommendations in the report are around implementing the recommendations above through jurisdictions committing to a three-year timeframe and reporting to the BMF.

Although Tasmania is already meeting most of the recommendations in the report, we are working with the BMF to improve further and help achieve national consistency.

You can view the Building Confidence Report at www.industry.gov.au

What you need to know for NCC 2019

The Australian Building Codes Board (ABCB) talks about what you need to know to prepare for the adoption of the 2019 edition of the National Construction Code (NCC) on 1 May 2019.

Preview NCC 2019

On 1 February, NCC 2019 became available for preview ahead of its adoption on 1 May 2019. All three volumes, as well as the Guide to Volume One are now available to download as a pdf, or if you prefer the digital experience, you can navigate your way through with the enhanced NCC online.

You can access the preview of NCC 2019 or download previous editions of the NCC through the new dedicated URL, ncc.abcb.gov.au and registering or logging into your NCC profile.

Key changes

Some of the key changes from the 2016 edition include:

- more quantified performance requirements with the introduction of 20 new verification methods
- introducing consistent governing requirements across all volumes
- a new non-mandatory verification method for fire safety
- new Deemed-to-Satisfy (DTS) provisions for fire sprinklers to be installed in apartment buildings and other residential buildings 4 storeys and above and up to 25 metres in effective height
- new requirements for condensation management
- a package of measures for Volume One that focuses on reducing energy consumption
- improvements to numerous Acceptable Construction Practices (ACPs), and new ACPs in Volume Two
- new requirements for accessible adult change facilities and

- new and consolidated requirements for heated water temperature control, cross-connection control and rainwater harvesting and use.

More information is available from the latest updates section of the ABCB website or the ABCB's online publication, ABCB Connect, at www.abcb.gov.au

Key dates

Whilst NCC 2019 will be adopted from 1 May 2019, energy efficiency changes are subject to a one year transition period and the adoption of the fire safety verification method will be delayed one year. The table below highlights the key dates related to NCC 2019.

NCC 2019 preview	Available now at ncc.abcb.gov.au
NCC 2019 adopted	1 May 2019
Energy efficiency transitions ends	30 April 2020
Fire Safety Verification Method adopted	1 May 2020

'View' the NCC your way

The ABCB has modernised the online platform for NCC 2019. You'll be able to access relevant resources and guidance material, and navigate online much easier than ever before.

The ABCB's digitisation project is focusing on improving and enhancing NCC access and understanding through new and refreshed technologies in order to help you to understand the Code, whilst considering the range of abilities and needs of NCC users.

To help with this, the ABCB has improved the functionality, navigation and searchability of the online Code. This means that whether you are reading Volume One, Two or Three you can easily find what you are looking for.

The NCC's online platform offers intuitive functionality, ease of use, a favourites tab and 'share-ability'. Here are few things you should know about the enhanced NCC:

- linking of relevant support materials, such as handbooks, calculators, infographics etc to the related section in each volume
- built for mobility and accessibility requirements
- includes visual improvements such as changing navigation links to remove title case for easier reading; and re-configuring explanatory and guidance information, including State and Territory variations to 'pop-up' windows which helps avoid navigating away from the main content
- limited navigation levels to 2 clicks (in most cases)
- improved search – including filtering of search results, and
- pre-set filtering of content for each volume to highlight governing and performance requirements.

This is just the start of the new functions. Next time you log in at ncc.abcb.gov.au select 'View' to experience these changes for yourself. You'll also notice that these changes have been rolled out for NCC 2016, which remains in effect until the adoption of NCC 2019. Also, keep an eye out for a YouTube clip which the ABCB will be releasing shortly that provides an overview of the new NCC online features.

Looking for the Guide to Volume One?

With the new NCC online, one of the most significant changes you'll notice is that the Guide to Volume One is now part of the related resources within the Volume. It's also directly linked to the relevant section. Don't worry, there's still a PDF version if you prefer to use it this way!

Do you have feedback?

Registered NCC users are invited to provide feedback on all aspects of the digital NCC. If you find a broken link, incorrect reference, or have a suggestion for how the ABCB can improve your experience, they want you to let them know.

You can email your feedback to: NCCOnline-feedback@abcb.gov.au

Please understand that this email address is for feedback on the operation and functionality of NCC online. If you have a proposal for change or a technical clarification, the ABCB has separate services dedicated to assist you with these suggestions or enquiries.

But wait, there's more!

The ABCB has been busy working to develop over 40 new materials and updating even more existing resources to support NCC 2019. They'll be available for free from the ABCB Resource Library over the coming months.

You can stay up to date with the release of NCC 2019 and other key ABCB releases through the ABCB website abcb.gov.au and by opting into 'Areas of Interest' as part of your NCC registration profile.



Master Builders Tasmania

The building industry and a healthy economy go hand in hand in Tasmania. In the last 12 months building and construction has been one of the most important drivers of economic growth. We have:

- led the economy in the creation of full-time skilled jobs
- provided more opportunities for apprentices to enter the workforce than any other industry
- built more than 2,800 new dwellings to help address the challenge of housing affordability, and
- helped to fix the damage to homes and businesses as a result of last year's floods in Hobart.

I for one am proud to represent an industry which provides so much to the community and to the prosperity of the Tasmanian economy.

For now, the underlying economic drivers are still very strong. House prices in Hobart are currently the strongest growing of the eight Australian capitals. The city is also experiencing the fastest rate of rental price growth in the country – a result of insufficient supply in previous years and a surge in tourism which has driven many landlords to test their luck in the short stay rental market.

Population growth in Tasmania has picked up as a result of the improving labour market. The state is now experiencing a net inflow of residents from other parts of Australia. Population is a central driver of building work in sectors like education, health, retail and transport, and in the last half of 2018 the value of work done in the commercial sector increased by approximately 20 per cent.

Public investment in major transport infrastructure projects has seen the value of engineering construction activity top \$1.3 billion in the last 12 months. The announcement of the \$1.6 billion Hobart City Deal and a record commitment in the 2018 State

Budget suggests there is still plenty in the pipeline to support an outlook for more growth in the engineering construction sector.

Looking forward we are in an enviable position in that our biggest challenge is also perhaps our biggest opportunity; to ensure we do everything we can to maximise the opportunities that a prosperous industry offers. This means:

- investing in our capacity to deliver on the needs of the community
- building housing which is affordable for everyone
- delivering critical social infrastructure projects on time and on budget so that the community does not pay more or wait longer than it needs to, and
- providing opportunities for Tasmanians from all walks of life to build rewarding and successful careers in our industry.

This is a shared vision and requires a collective approach between industry and government if we are to succeed. There's no better time to consider a career in the building and construction industry. If you are a young person deciding on possible career paths, or perhaps someone looking for a career change I encourage you to consider taking up a trade and consider the opportunities that a career in the construction industry may offer you.

Matthew Pollock
Executive Director



CPD requirements for licensed practitioners

CPD has now been a legislative requirement for building services providers since 2005 and for gas-fitters, electricians and plumbers since 2016.

As we are approaching the 3 year mark for gas-fitters, electricians and plumbers here are a few reminders:

- All licensed practitioners must complete CPD to renew their practitioner licence.
- The licence holder is responsible for recording CPD activities.
- An employer must also keep a register and you can use this as your record for CPD if there is an audit. Let your employer know of any CPD activities you do to add to the register.
- If you are a sole trader or self-employed, you only need to keep a record of your own activities.
- If you change employers, or decide to start your own business, you should get a copy of your CPD record from your employer and keep it for future reference.

- Your CPD log needs to be available for audit when requested by an Authorised Officer. CBOS may use the log to validate and report your CPD point accumulation when renewing your occupational licence.

The main details to record are:

- date
- training course
- training provider
- number of CPD points
- certificate of attendance or attainment if provided.

If undertaking research:

- reason for research
- journal details, for example, name of journal, date of publication, article title
- website details, for example, title of article, year and the web address.

Note: There is no carry-over of CPD points from one licencing period to the next.

Requirements for employers

If you employ licensed practitioners you must maintain a register of all those employees. The register must contain the licence details of employees that carry out prescribed work, along with the qualifications, competencies and continuing professional development (including CPD points) of those employees. CBOS can audit the register and you must make it available when requested.

It is important to maintain the register because failure to keep an accurate register is an offence under the *Occupational Licensing Act 2005*.

The CPD events calendar is a great way to keep up-to-date with training opportunities. Go to: www.cbos.tas.gov.au/topics/licensing-and-registration/cpd/events-calendar

CPD events calendar

CBOS has provided a CPD events calendar to assist in your professional development opportunities. The activities in the Calendar have been assessed and approved by CBOS to ensure that they are both reliable and provide quality learning.

Use the training calendar to browse upcoming courses by licence holder category, date or region.

- All events
- Architects
- Builders
- Building Designers
- Building Services Designers
- Building Service Providers
- Building Surveyors
- Electricians
- Engineers
- Gas-Fitters
- Permit Authorities
- Plumbers
- Restricted Electrical

Month June

Region All

Jun 03

[Managing your Finances](#)

🕒 05:00pm - 08:30pm

📍 Ulverstone Surf Life Saving Club, Beach Road, Ulverstone.

📄 CPD Points: 12

📍 Region North West

🔥 4 Sessions commencing 3 June 2019

Architects

Building Designers

Building Services Designers

Building Service Providers

Building Surveyors

Electricians

Engineers

Gas-Fitters

Plumbers

Restricted Electrical

New HIA Executive Director calls for 2019 to be the year of planning reform

In late December I was appointed the Housing Industry Association's (HIA) Executive Director Tasmania. While new to Tasmania I am certainly not new to the industry with an extensive policy background in construction law, business compliance and skills advocacy. Over twenty years I have worked for HIA across the country including NSW, Western Australia, Queensland and the ACT, learning about different systems and approaches to building regulation, construction methods and industry issues.

It seems that Tasmania also has its own unique ways of doing things. My early interactions with HIA members and government have revealed an intensely proud and vibrant industry that is committed to design, innovation and quality workmanship while being mindful of the need to provide affordable housing solutions.

Despite Tasmania's differences, there are many things it does share in common with the mainland. There is a need to reform the planning system to simplify planning and development processes to ensure a more cost effective and timely supply of land and housing. This is something that most states and territories have grappled with and experienced varying levels of success.

In Tasmania there is now a real opportunity to effect positive change through a number of reviews and programs. HIA is optimistic that 2019 will deliver the necessary planning reform.

The Planning and Building Portal is one such project that will:

- enable the streamlining of plumbing, building and planning lodgement processes and
- provide critical information (fire mapping, electricity and water asset location, heritage, slippage) on the development of individual sites.

HIA is offering assistance and feedback on the development of the portal which is being undertaken by CBOS.

Similarly, HIA has contributed to the State Government's Development Regulatory Reform Project. This has the potential to address many of industry's concerns around the pre-construction phase with the elimination of:

- duplication
- bureaucracy and
- inconsistencies.

Simple changes like removing the requirement for development approvals for certain types of work and preventing needless 'Requests for Information' will be welcomed by industry.

HIA is also pushing for the Statewide Planning Scheme to be operative and finally deliver a set of consistent, overarching guidelines to replace the 30 different schemes across the state.

It remains to be seen whether these much needed reforms occur in 2019. But one thing is certain - HIA will continue to advocate for these changes. In doing so it will seek to work cooperatively with CBOS and other government agencies to create a better operating environment for industry and the best possible outcomes for Tasmanian communities.

Stuart Collins
HIA Executive Director
Tasmania





National Construction Code 2019

On 1 May 2019, all states and territories will adopt the National Construction Code (NCC) 2019.

The new Code features significant changes, as this is its first release in the new three-year cycle.

The Australian Building Codes Board (ABCB) has reworded and restructured the NCC 2019 to make it easier to read. For example, all three volumes of the NCC now have the same governing requirements. This is where you find information on how to use the NCC. Definitions and referenced documents are now at the back of each volume.

See for yourself – go to the ABCB website at www.abcb.gov.au and download the entire NCC 2019 for free!

Key changes to Volume One Energy efficiency

The energy efficiency requirements for class 2-9 commercial buildings are more stringent under the NCC 2019 to increase the environmental and economic benefits of energy efficient buildings. The main changes are:

- Performance requirement **JP1** for energy use now includes a quantified level of performance for buildings with a conditioned space.
- Performance requirement **JP3** for heating has been deleted. Onsite renewable energy use is covered in **JP1**.
- There are new optional verification methods for complying with **JP1**:
 - **JV1** verifies compliance of class 5 office buildings using the National Australian Built Environment Rating System (NABERS)
 - **JV2** verifies compliance of class 3 and 5-9 buildings with a Green Star rating
 - **JV4** verifies compliance with building sealing requirements through air leakage testing.
- Glazing is now assessed as part of the overall building façade under **J1.5**.
- Separate heating and cooling load limits have been introduced for class 2 and 4 buildings in addition to minimum star ratings. However, they don't apply in Tasmania due to our predominantly cold climate.

You can use these new energy efficiency provisions from 1 May 2019, or you can use the existing NCC 2016 provisions until 1 May 2020. This ensures that there is time to adjust to the new provisions. During this transition period, you cannot combine the 2016 and 2019 provisions.

The ABCB will be releasing updated handbooks on energy efficiency to help you understand the new provisions.

Disability access

Accessible adult change facilities must be provided in large shopping centres, sporting venues, museums, theatres and airport terminals. Under the new clause **F2.9** and specification **F2.9**, these facilities must comply with more stringent requirements for hoists, turning spaces, change tables and other features to ensure that they are accessible to people with more complex disabilities.

You can use the new verification method **DV2** when assessing the compliance of disability access to and within a building.

Verification method **DV3** is also new, and can be used to verify compliance with **DP2** for disability access ramps.

Sprinkler protection

Under changes to clause **E1.5**, all class 2 apartment buildings and class 3 hotels that are over four storeys high must be sprinkler protected. This was previously only the case for four storey buildings over 25m high, but has now been extended to improve fire safety. For buildings less than 25m, there are some extra options for complying with the sprinkler requirements other than AS 2118:2017 *Automatic fire sprinkler systems*.

The costs of meeting this requirement are offset by concessions for other fire safety features.

New fire safety verification method

A new fire safety verification method, **CV4**, has been introduced as an option to verify compliance with performance requirements **CP1-CP9**. It is set out in Schedule 7 of Volume One.

This new verification method specifies scenarios to consider when demonstrating fire safety. It has been introduced to help increase the use of performance solutions.

A fire engineer must develop the performance solution and achieve equivalence with Deemed-to-Satisfy provisions.

This new verification method doesn't start until 1 May 2020. In the meantime, the ABCB will be releasing a handbook to help people use and understand the verification method.

Occupiable outdoor spaces

Part G6 has been introduced which has new requirements for buildings with occupiable outdoor spaces such as rooftops. The NCC 2019 recognises these spaces as a storey, and so fire isolated exits, exit signs and emergency lighting are now mandatory. This dramatically improves the fire safety of these spaces.

Key changes to Volume Two

Energy efficiency

The key energy efficiency changes for class 1 houses and class 10a sheds with conditioned spaces are as follows:

- It is now clear that NatHERS software cannot be used under verification method **V2.6.2.2** to comply with the performance requirement for building energy efficiency. More prescriptive modelling requirements for the reference building have also been added. This addresses concerns that the use of the verification method was possibly resulting in lower dwelling performance compared to other compliance options. You can still use the NatHERS software under the Deemed-to-Satisfy provisions in clause **3.12.0**.
- A new verification method **V2.6.2.3** has been added to provide another option for complying with building envelope sealing requirements in Part 3.12.
- There are new separate heating and cooling load limits in addition to NatHERS star ratings in clause **3.12.0** the same as in Volume One. However, again, these don't apply in Tasmania due to our cold climate.

These new energy efficiency provisions are not mandatory until 1 May 2020.

Condensation

For the first time, the NCC has requirements for condensation management. These apply to class 1, 2 and 4 buildings, and are contained in Volumes One and Two.

The new provisions aim to reduce the build-up of condensation in buildings, and the structural and health problems this can cause.

For more information, see our other article in this magazine 'Condensation Regulatory Update'.

Fire safety

The fire safety requirements in **Part 3.7** of Volume Two have been reworded and restructured. There are new diagrams and explanatory information to help in understanding the fire separation requirements for class 1 and class 10a buildings.

There are new requirements in clause **3.7.3.5** for cantilevered floors which have a fire separating wall. Previously the requirements for cantilevered floors were unclear.

There is also a new clause **3.7.1.2** for fire hazard properties which specifies requirements for sarking materials and flexible ductwork.

More information

You can view the NCC 2019 and its associated handbooks on the ABCB website at www.abcb.gov.au

For help with performance solutions, you can contact the ABCB's Subject Matter Expert (SME) Network. The SME Network comprises of some of Australia's leading practitioners and other experts. You can submit questions to them via the online enquiry form on the ABCB website. Just select the 'NCC clarification' option as the enquiry category, type in your question and ask for help from the SME Network.

Keep an eye out for NCC 2019 training run by the ABCB, including specific training sessions on energy efficiency and the new fire safety verification method. Missed a training session? Check out the ABCB's YouTube channel, where recordings of previous training sessions are often uploaded.



TPS/PVC cables in contact with polystyrene products

What is the hazard?

TPS/PVC cable insulation can become brittle and crack when in prolonged contact with aromatic polymers such as:

- styrene
- styrofoam
- polyurethane
- bituminized papers and
- polystyrene.

This can result in increasing the risk of exposed conductors and may result in electric shock, fire or explosion.

How does this hazard occur?

The plasticiser in cable insulation keeps the insulation material flexible. Without this plasticiser the insulation hardens and becomes more brittle over time. When the cable is in contact with materials, such as polystyrene and polyurethane, the plasticiser loss can accelerate hence the PVC becomes brittle and cracks easily. The insulation failure increases the risk of exposing conductors and may result in electric shock, fire or explosion.

Typical installations where cabling is installed in conjunction with polystyrene products are:

- caravans
- cold rooms
- transportable buildings
- wall or roofing insulation material.

One significant factor which affects the rate of leaching is the size of the contact area between the cable and polystyrene. The larger the contact area, the quicker the rate of plasticiser leaching out. The rate of the cable's deterioration will vary with the installation conditions.

Safety considerations

It is essential for installers to check with the product supplier or manufacturer to assess suitability for installation in close proximity to materials containing polystyrene or polyurethane. If direct contact with these products occurs, select a specific cable which is suitable for the installation.

Check the insulation for any damage before installing this cable and always follow the cable manufacturer's instructions. It is important to remember to always install in accordance with the manufacturer's instructions. The required instructions may be on the manufacturer's website, or available from your supplier.

Recommended practice

New installations

Assess your installation if proximity to these materials is likely. Select a cable with protective sheath material that the manufacturer confirms can be installed in contact with materials such as polystyrene and polyurethane. Or install your cable making sure there is no direct contact with polystyrene using methods such as:

- install the cable in a suitable conduit
- leave an air gap between the cable and the polystyrene
- apply a suitable barrier between the cable and the polystyrene.

Existing installations

If you are conducting work in an area and you identify a cable in contact with materials such as polystyrene and polyurethane, check to see if the cable has become hard and brittle. If it hasn't become hard or brittle, consider actions to remove the contact. If the cable has deteriorated discuss replacement with the installation owner.

Overhead line design

AS/NZS 7000:2016 *Overhead line design* was published on the 17 May 2016. Consequently the Standard became a mandatory requirement for overhead line design and construction. The purpose of this Standard is to set out minimum requirements to ensure overhead conductors and supporting structures provide the appropriate level of safety.

The *Occupational Licensing (Standards of Electrical Work) Code of Practice 2016* directly mandates this Standard. Therefore compliance with the Standard is mandatory for persons conducting overhead line work.

Electrical work considered as repairs, such as like for like replacements, may use the appropriate Standard in force at the time of the original installation. However it is always recommended to implement the new requirements wherever possible.

CBOS is aware that some contractors are still using the old 2010 edition or even the outdated TasNetworks' line design manual when designing and constructing new or altered overhead lines.

To maintain a consistent high level of electrical safety, CBOS may conduct audits on overhead line work to ensure the installation work complies.

To get a copy of the Standard call 131 242 or visit infostore.saiglobal.com

AS/NZS3000:2018

Do not fall into the trap - install RCDs on all final sub circuits

Important - when replacing or upgrading switchboards, all final sub circuits irrespective of capacity in domestic installations must be RCD protected including hot water and cooking appliances. This may give rise to an increase in appliances that will trip an RCD once energised.

Although this issue applies particularly to electric cookers and hot water services, other electrical equipment such as heaters, would have similar concerns.

A domestic oven may have as many as seven mineral insulated metal sheathed element segments. A low insulation resistance reading in just one of these may cause the RCD to trip once energised. Several different failure modes are possible:

- The RCD may not hold in after being energised
- The RCD may trip when energising one specific element
- The RCD may trip when energising multiple elements
- The RCD may trip sometime after energising and the element reaches a specific temperature that causes sufficient earth leakage.



Sheathed elements may have a residual loss when heated above a certain temperature

RCDs on old equipment

Rectification of this will add time and replacement parts and is not a fault of the RCD. Your customer may have the view that it was working fine before replacing the switchboard and that you caused the tripping problem.

These faults are not always detectable with an insulation resistance test alone but require the element to reach a certain temperature before displaying leakage.

RCDs on new equipment

On new equipment in a new installation, this does not present a problem to the contractor, as it may be referred under warranty to the manufacturers' service agent to resolve, at no cost to the consumer.

Replacing a switchboard in an existing installation is often a quite different situation. The warranty has long expired, and the time to resolve may vary, depending on specific circumstances.

RCDs can also trip through cumulative leakage above 30mA. Where a cooking appliance has multiple elements, using an RCBO or similar specific to the cooker sub circuit is likely to be a better choice than an RCD shared with other circuits.

The risk of tripping also applies to hot water services, which may have low insulation resistance on the element or terminal strip. Most domestic hot water services have a single generic element. Resolution is less problematic to the contractor, however it still has a time and material cost.

Minimising risks to you and your client

1. Test the insulation resistance of the circuits before you start installing the switchboard.
2. Some cookers may have elements which haven't been used in some time. On multifunction ovens it is common for customers to use a favourite setting. Run the appliance for a couple of minutes on each setting and using multiple elements.
3. Repeat insulation resistance test to note if readings have changed.
4. Discuss any weaknesses and possible costs with your client. Importantly ensure that the customer is aware of the possibilities of future tripping.
5. Proceed with upgrade.
6. Test all elements / functions.
7. Submit CEC for completed work.

Some extra testing may save you from disputes and disgruntled customers. Satisfied and happy customers are important to every business.



Hot water elements may cause tripping of the RCD if aged

Your Voice - Why it is important to submit a CEC

12 months ago an employee of my company installed an underground sub mains and sub board in a shed around 80 metres from a house.

The customer requested a simple install in the shed - just a few LED lights and an outlet for a fridge. The maximum demand would have been around 15Amps, so we decided to install a 6mm sub main with MEN at the shed sub board.

For no reasons other than a lack of communication and failure to check, we did not submit the required CEC for our work.

Recently, we were contacted by the Department of Justice who said we had failed to submit a CEC. TechSafe found our work when inspecting other work at that address. To make the situation worse, the MEN was missing from

the sub board we'd installed. The Department said that no MEN was severely defective work, which attracts high penalties.

I knew we had done the work right but all the evidence pointed at us. We had invoiced the customer for work including sub board and sub mains and we had no proof to show we had left the site safe (CEC, photos etc.) Had there been an electrocution or similar, things would have looked rather grim for our company.

The Department did an investigation and found that since we completed that work 12 months ago the shed had been wired and fitted out with lighting, power and heaters, some of which was defective (and most likely done as a 'cashie').

Luckily for my company, the investigation found out that we had in fact installed the MEN and identified who had removed the MEN afterwards.

We were hit with an infringement notice for failing to submit a CEC as per the *Occupational Licencing Regulations 2008*.

The outcome from this inspection could have been a whole lot different had the investigation not found evidence of others removing the MEN. If we had submitted a CEC for the job as required we'd have been in the clear from the start. Without submitting a CEC you can't prove your site is left safe. No-one wants to take the hit for someone else's mistakes.

- Name withheld by request

Is your earth electrode compliant?

The installation of an earth electrode is an essential part of the MEN system of earthing. This electrode ensures the connection of the electrical installation earthing system to the general mass of earth. (Clause 5.3.6.1)

AS/NZS 3000:2018 *Electrical Installations (Wiring Rules)* provides several options for acceptable methods and appropriate material for the earth electrode.

Table 5.2 provides the information on different material types and corresponding minimum sizes, with Clause 5.3.6.3 specifying specific acceptable installation methods.

Clause 5.3.6.3

- Vertical-type earth electrode of varying material and sizes driven to a minimum depth of 1.2 metres, or
- Horizontal Strip type earth electrode of varying material and sizes buried with at least 0.5 metres of cover and a minimum 3m in length.

It is becoming increasingly popular for electrical contractors to use the horizontal strip method utilising a redundant length of 25mm XLPE cable. Most often this is left over from the consumer mains and like all XLPE has a black outer sheath.

To achieve the bare copper requirement in Table 5.2 for the 3-metre underground portion, the contractor strips off the outer

sheath and inner insulation to the ground entry location. This point is considered the junction between the earth electrode and the main earthing conductor.

25mm XLPE has a black sheath and most often internal opaque insulation. It is necessary to identify the main earthing conductor portion as being part of the earthing system.

Clause 3.8.2.1 requires single core cables used as an earthing conductor to be identified along the entire length with a green yellow sleeving.

Please Note: insulation tape alone is not acceptable, but sleeving is.

Finally, do not forget, Clause 5.3.6.4 requires a label at the main switchboard which identifies the location of the earth electrode. If using the strip electrode method, you need to indicate the buried location on the site plan.

Electrical installations

Safety of battery systems for use with power conversion equipment

On 30 January 2019, Standards Australia released a draft of a new battery installation standard for public comment. This public comment period ended on 3 April 2019. Standards Australia will complete the review process and release the long overdue Standard which stipulates the minimum requirements for battery installations.

After the Standard is released, CBOS intends allowing an introductory phase before mandating the Standard as the minimum requirement.

Make sure you are ready to meet client expectations.

As the viability of such storage systems increase on a day-to-day basis, it is likely that your customers may start asking you about system feasibility. CBOS encourages all persons and organisations in the electrical industry to keep abreast of these new systems.

For more information on Standards visit www.standards.org.au



Everyone's biggest fan

Important message for electricians and builders and other tradies

Installing or replacing kitchen range hoods and bathroom exhaust fans can impact on the safe operation of open flued space heaters.

Flued space heaters, like the majority of fuel burning appliances, rely on indoor air for correct operation. The operation of these extraction fans along with poor ventilation can cause negative pressure to develop within the home.

What is house depressurisation?

House depressurisation occurs when household equipment, such as kitchen or bathroom fans, uses air from inside the house which in turn lowers the pressure. This depressurisation can hinder the natural draught from vented and flued appliances and lead to the back draft or "spillage" of combustion products into living spaces. Extensive spillage can cause elevated indoor levels of combustion products and dangerous contaminants such as:

- carbon dioxide (CO₂)
- carbon monoxide (CO)
- nitrogen dioxide (NO₂) in other gas-fuelled appliances.

Modern house construction and renovations continue to maintain a focus on building tightness to:

- maintain heating efficiency ratings and
- prevent drafts.

This minimises the natural ventilation capabilities of a building and subsequently lowers the ability to draw air from gaps, vents and adjacent rooms. These methods dramatically increase the likelihood of spillage from flued appliances.

We are in an ever changing and evolving construction industry. Systems are:

- bigger and more powerful
- quieter
- often duplicated with extra bathrooms, kitchens and butler pantries.

All trades need to take a proactive approach in observing the potential effects of mechanical/electrical ventilation systems where they may compromise and interfere with correct operation of fuel burning flued appliances.

Electricians and other tradespersons are not expected to know whether a gas space heater is open flued or room sealed. However it is important that customers are advised they should have their space heater checked by a licensed gas-fitter after installing a kitchen range hood or any other type of exhaust fan.



Gas supply point issues

LPG and Natural Gas (NG) are becoming more accessible choices for home heating, cooking and hot water. It is crucial for consumer safety to install appliances correctly.

CBOS is aware that many gas-fitters are not meeting their obligations under the *Gas Act 2000* and *Gas (Safety) Regulations 2014*.

At CBOS, Gas Standards and Safety (GSS) has enhanced our gas installation inspection program over the past 18 months. We are now conducting more frequent inspections of Complex and Type B installations, and also carrying out state-wide audits of standard installations.

Inspections are regularly revealing issues, which can make an installation immediately non-compliant. The most common areas are:

Certificates of Compliance (Gas Fitting Notice)

A Certificate of Compliance for gas-fitting work on standard gas installations or gas storage systems must be:

- in a form approved by the Director of Gas Safety, and
- signed by the gas-fitter who performed the gas-fitting work.

The gas-fitter must, within 48 hours after the gas installation or gas storage system is commissioned, provide a copy of the completed Certificate of Compliance for gas-fitting work to:

- the Director of Gas Safety, and
- the person on whose behalf the work was carried out or the owner

of the gas installation or gas storage system, and

- If the gas installation or gas storage system is connected to:
 - o A distribution system, to the gas distributor or
 - o A gas storage system, to the gas supplier or
 - o A pipeline declared as a transmission pipeline under the *Gas Pipelines Act 2000*

Refer to *Regulation 50 – Gas (Safety) Regulations 2014* at www.legislation.tas.gov.au

Making sure you provide enough detail

Often Gas Fitting Notices are incomplete with important details missing. Please make sure the form is:

- completed in full and
- written in a clear and legible manner.

This includes, but is not limited to, the requirement for gas-fitters to get the MRN for the installation site. Contact Tas Gas Networks before turning on the natural gas meter. The gas infrastructure owner gives gas-fitters permission to turn on the gas.

To turn on a natural gas meter without permission is a breach of the Act

Appliances and gas storage systems can be installed at a particular site, or on a specific vehicle (for example a caravan, trailer, mobile catering). Sites must have a site/street number, name and suburb. Mobile vehicles

must have full registration details, including the Registration Number, Chassis and/or VIN numbers. Please ensure you provide as much detail as possible. This allows easier tracking for issues like product recalls or inspections.

When commissioning a caravan or mobile home, especially if it is at a dealership or being prepared for sale, please make sure you get the new owner's details including their name and phone number. A registration plate is easily changed, but a Chassis and VIN number always stay with the vehicle and can be tracked and identified.

Attaching compliance plates

You must securely attach a compliance plate to a Type A appliance. The compliance plate must be:

- in a form approved by the Director of Gas Safety
- readily accessible by any person inspecting the Type A appliance.

New Type A appliances

If the appliance is a new Type A appliance, the compliance plate must be in a form which:

- states the Director of Gas Safety has approved the Type A appliance under section 73 of the Act, and
- displays the identification number assigned by the Director, and
- displays the approval date.

Second-hand Type A appliances

If the Type A appliance is second-hand, the compliance plate must be in a form which:

- states that the Type A appliance has been inspected and complies with current safety requirements, and
- includes the name of the person inspecting the appliance, and
- includes the identification number assigned by the Director, and
- includes the inspection date.

You must follow the instructions attached when purchasing Compliance Plates – DO NOT CUT OR ALTER a Compliance Plate.

Refer to *Regulation 52 – Gas (Safety) Regulations 2014* at www.legislation.tas.gov.au

Installing cylinders

Cylinders shall be installed in accordance with the following requirements:

- Install cylinders on a firm, level, non-combustible base, not resting on soil
- Construct the floor or base so that water cannot accumulate within any enclosure or recess
- Do not stack cylinders on top of each other
- Restrain any cylinders greater than 25L (9kg) and less than 200L (90kg) water capacity.

CBOS is working with gas suppliers, covering both LPG and NG installations, helping to identify when a Certificate of Compliance (Gas Fitting Notice) has or has not been submitted. This is being closely monitored and will result in CBOS issuing a Defect Notice to any offending gas-fitter.

Refer to AS/NZS 1596:2014 *The storage and handling of LP Gas*. To get a copy call 131 242 or visit infostore.saiglobal.com

AS/NZS 5601.2:2013 Amendment 3 2018

Gas installations - LP Gas installations in caravans and boats for non-propulsive purposes

Standards Australia published Amendment 3 to AS/NZS 5601.2:2013 in September 2018 adding an extra section.

National gas-fitting compliance plate (C-5G) for caravans and boats

The new Section 10 relates to Compliance, Markings and Labels installed on caravans and boats. In particular gas-fitters are now required to fit a **nationally consistent compliance plate** to all boats or caravans following any gas-fitting work. This includes:

- new gas installations
- modifications to existing installations
- re-certification of the gas installation.

Does this affect Gas Fitting Notices issued by the Director of Gas Safety?

The amendments to the Standard do not remove the requirement to provide the owner of the installation and the Director of Gas Safety with a completed Gas Fitting Notice certifying the gas-fitting work within the 48 hour time frame.

The national compliance plate detailed in the Standard does however replace the Tasmanian specific compliance plate sold through Service Tasmania shops.

Please note that this substitution only applies to caravan and boat gas installations. It **does not** override the current requirements to fit the Tasmanian specific compliance plate to all other gas installations in accordance with the *Gas Act 2000*.

Example of the national gas-fitting compliance plate

Where to get the national gas-fitting compliance plate

The national gas-fitting compliance plate (product number: C-5G) is available from:

Caravan Industry Association of Australia

Phone: (03) 9815 2015

Email: sales@caravanindustry.com.au

Warning labels next to cylinder storage and appliances

The revised AS/NZS 5601.2:2013 requires gas-fitters to fit warning labels next to cylinder storage and appliances. The content and formatting for these labels is contained in the amendment No. 3 to the Standard.

Copies of the amendment are available for free download or you can buy the complete Standard from infostore.saiglobal.com

Downloading the amendment does not provide a substitute for holding a complete copy of the Standard. If gas-fitters do not have a complete copy, Gas Standards and Safety strongly encourage you to do so. This will help ensure gas-fitting work complies with the Standard prescribed by the *Gas Act 2000*.



What is CPD Toolbox?



We know that as a tradie your time is precious. There is enough to do juggling work and family commitments and keeping track of where you're at on a day-to-day basis. This is why the Master Plumbers Association of Tasmania (MPAT) has designed the CPD Toolbox to help you meet your CPD requirements.

CPD Toolbox is available free to all licensed plumbers and gas-fitters and other building practitioners in Tasmania. It is easy to use and enables you to keep all your CPD records and information in one handy location.

Consumer, Building and Occupational Services (CBOS) requires your CPD records as part of your licence renewal. CPD Toolbox makes this extra easy for you by giving you the ability to:

- see what CPD activities are available near you or online
- register online for activities you would like to attend
- upload your own CPD activities
- keep records of CPD activities that you have undertaken and the points you have earned
- get information and news on CPD
- contact us with ideas for CPD
- check out our FAQ page
- see links to other external CPD activities
- print and email a CPD Report of completed activities to go with your licence renewal, and
- apply for a training subsidy with the Tasmanian Building and Construction Industry Training Board (TBCITB).

Your CPD Toolbox information is confidential to you and will not be used for any other purpose than providing you with CPD Toolbox information.

CPD Toolbox is here to make life easier for you. To register go to: www.cpdtoolbox.com.au

Upcoming training

Master Plumbers Tasmania has a range of training available through CPD Toolbox including online courses as well as regional face-to-face training.

This year we will have a strong focus on the introduction of the Plumbing Code of Australia 2019 and understanding the new requirements. We will also be focusing on gas standards and safety as well as common themes such as Security of Payment and contracts.

To see what's available and coming your way log onto CPD Toolbox!



Master Plumbers Association Tasmania

Flue spillage testing training back for 2019

Master Plumbers Association Tasmania (MPAT) is again planning to provide the very popular flue spillage training sessions in 2019. This is following on from very positive feedback from the sessions held in 2018. CBOS welcomes MPAT's initiative to deliver this incredibly valuable training.

The Director of Gas Safety and Gas Standards and Safety strongly encourages every gas-fitter to attend this training which also provides attendees with CPD points.

Training will help overcome public safety concerns, highlighted by recent deaths and appliance safety recalls, as well as the substantial dangers posed by operating open flued gas appliances incorrectly.

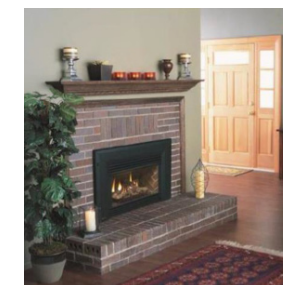
MPAT will release details on training sessions, dates, times and locations shortly. Go to www.mpatas.com.au or follow the CBOS Facebook page at www.facebook.com/TasBuildingStandards

Open Flued Gas Appliance Recalls

Recall notices have been issued on four open flued gas log space heaters.

The Recalls include the following heaters:

Heater model	Dates sold between	Supplier	Approval number
Regency i31	01/01/2010 – 31/12/2018	Fireplace Products Australia Pty Ltd	5498
Regency F38 and FG38 (Natural Gas Only)	01/01/2006 – 30/04/2018	Fireplace Products Australia Pty Ltd F38/FG38 was branded and supplied by Masport prior to 2006	6231
Nectre 2000	01/01/2007 – 30/06/2018	Glen Dimplex Australia Pty Ltd	5954
Real Flame Pyrotech	01/01/2012 – 30/06/2018	Glen Dimplex Australia Pty Ltd	GMK 10092



Regency i31



Regency F38-FG38



Nectre 2000



Real Flame Pyrotech

All four heater models failed safety tests and can, under certain circumstance, produce high levels of carbon monoxide.

The four models subject to the recall notices can be made safe with a technical fix. Households with these heaters can register and have a qualified gas-fitter modify and test their heater.

Are there any costs?

Where there are no other issues affecting performance, the technical fix will make the heater safe to use. The responsible supplier will meet the costs.

Repairs not related to the product recall

The owner is responsible for any repair costs to the heater due to poor

maintenance or anything not related to the technical fix, for example installation issues. The heater may need to be isolated due to spillage of carbon monoxide or other dangerous exhaust gases.

Heater manufacturers recommend consumers should stop using these products immediately and contact the manufacturer

Manufacturer contact details

Fireplace Products Australia

- Email safety@regency-fire.com.au
- Phone 1800 860 660

Glen Dimplex Australia

- Email productservice@realflame.com.au
- Phone 1300 014 389

Gas-fitters who encounter one of these heaters are strongly encouraged to:

- notify their customer of the recall
- tell the customer they should stop using the heater immediately and to use other heating until a qualified gas-fitter completes testing
- notify CBOS of the heater model and location by email at: cbos.info@justice.tas.gov.au

Notifications to this office will allow the Director to oversee the recall for the safe outcome of consumers.

DO NOT bring outdoor gas appliances indoors



Are your clothes safe?

WorkSafe has been alerted to incidents where tradies using angle grinders have suffered abrasions and cuts to their faces after cords on their hoodies became entangled in the equipment.

This is a good reminder to check your workplace for risks of workers' clothing being caught in moving plant and equipment.

Consult with your workers to make sure their clothing does not have any loose or dangling cords or drawstrings. Ideally, workers would not start work wearing clothing with these or with loose sleeves, shoe laces or ties. If this can't be avoided, work out ways to securely fasten them.

You may want to update your safe work procedures and train your workers in the changes (make sure the procedure is included in your induction toolkit too). Procedures, training and supervision are important — but removing the hazard in the first place is the best option.



NBN + lift phone services

Has the NBN been rolled out in your area? Your building's fire alarms and lift phones may no longer work.

Lift phone services are safety critical, and it poses a serious risk to public safety if they don't operate in an emergency situation.

Building owners, managers and bodies corporate are responsible for ensuring lift phone services are operational and comply with relevant regulations.

What to do if you have a lift phone service

The Australian Government has a one-page fact sheet that includes step-by-step recommendations to follow if you think your lift phone service may be affected. Go to www.communications.gov.au and search for 'lift phone services'.

GTRC Gas Appliance Certification Scheme Rules and Gas Compliance Mark

All Type A gas appliances sold in Australia must meet minimum levels of safety and performance, which are set out in a range of Australian Standards. Approved certification schemes ensure all appliances sold comply with these requirements.

The Gas Technical Regulators Committee has developed and published new Scheme Rules which apply to all national gas product certification schemes. This ensures expectations are clearly outlined, and provides consistent safety outcomes. As part of any gas product certification scheme, a typical sample of a gas appliance design is assessed against the requirements of the relevant product standard. The certification scheme also requires audits. Products being sold are routinely compared to the certified design. This ensures appliances have not changed from the tested and certified design.

After certification, the appliance is marked with an approval badge.

In Tasmania, it is illegal to sell or install a gas appliance or components which are not certified against a nominated standard. All gas-fitters must ensure that appliances and components are certified before installation.

Approval badges

Gas-fitters and the public use the approvals badge as an indicator that the appliance is:

- certified, and
- legal to sell and install.

Appliance certification details are available on a publicly searchable database at www.gtr.gov.au. You can use this database to verify that a specified model has the appropriate approvals.

The Director of Gas Safety accepts the certification schemes of certain certification bodies. All certification bodies must comply with the new Scheme Rules to maintain this acceptance.

New national gas compliance marks

The greatest change that gas-fitters will notice is that all gas appliances will have a new national gas compliance mark as evidence the appliance is certified. This new mark may in some instances be in addition to the existing individual certification body's mark. Gas-fitters must ensure that Australia is referenced on the new gas compliance mark.

If Australia is not written on the mark it is only suitable for sale and installation in New Zealand and cannot be sold or installed in Tasmania.

Transitional arrangements

Certification bodies have been required to implement the scheme rules for new certifications from 1 January 2019. Transitional arrangements mean that existing certifications (those issued before 1 January 2019) are required to comply with the rules from 1 January 2020.

The Gas Technical Regulators Committee's website at www.gtrc.gov.au lists:

- all Australian and New Zealand approved Conformity Assessment Bodies
- certified appliances and components
- the rules for Conformity Assessment Bodies.

AS 3814: 2018 updates

Type B gas-fitters need to be aware that AS 3814:2018 – *Industrial and Commercial Gas-Fired Appliances* was published on 25 October 2018 and supersedes AS 3184:2015.

Gas Standards and Safety encourages all Type B gas-fitters to familiarise themselves with the new version of this prescribed Standard. It forms the basis for acceptance for all Type B appliance applications received by the Director of Gas Safety for review.

Changes to the revised Standard include but are not limited to:

- A number of editorial and reference errors in the previous edition of this Standard have been corrected and further notes added to several clauses to help provide guidance to users of this Standard.
- Programmable electronic systems (PES) has again been revised to better align with AS 61508 (series) (the related application Standard), AS IEC 61511 (series) and AS 62061.
- The requirements for hazard and risk assessment have been expanded in line with international practice. This includes a new informative Appendix K as well as a list of significant hazards covered by this Standard in new Appendix M.
- Appendix O on fitness for purpose has been added to provide guidance on establishing an equivalent level of safety to this Standard.
- Appendix P on biogas applications has been added for guidance on the application of this Standard to biogas installations.
- New clauses relating to purging after flame failure, safety shut-off valve concessions, and the use of flexible gas hoses in valve trains.

To get a copy of the revised Standard call 131 242 or visit infostore.saiglobal.com



BSI New Kids on the Block

Regulations stipulate that gas products marketed, offered for sale or installed in Tasmania, require certification. Certification involves rigorous testing procedures to ensure consumer and public safety.

The Director of Gas Safety recently approved BSI Group ANZ Pty Ltd as

an external authority, to certify a broad range of gas appliances and products for use in this state.

The internationally-based Conformity Assessment Body provides a formal accreditation service which is recognised throughout Australia and New Zealand and is accredited by JAS-ANZ.

JAS-ANZ is the government-appointed accreditation body for Australia and New Zealand. They are responsible for providing accreditation of conformity assessment bodies in the fields of certification and inspection.

The Gas Technical Regulators Committee (GTRC) national certification database is the go-to website for all gas appliance recognition.

Reminder to all gas-fitters: use the GTRC national accreditation database at equipment.gtrc.gov.au

This site provides component and appliance certification details from all Tasmanian recognised certifying bodies including:

- AGA
- Global-Mark
- IAPMO
- SAI Global
- BSI Group ANZ Pty Ltd.

Contact BSI Group ANZ Pty Ltd certification services on:

T: 1300 730 134

F: 1300 730 135

Email: info.aus@bsigroup.com

Web: www.bsigroup.com/en-AU

Examples of gas certification badges



Acceptable



Acceptable



Not Acceptable New Zealand only



Plumbing Code of Australia (PCA) 2019 – reference documents

There has been a substantial amount of change to the documents referenced in the PCA 2019, including the 2018 editions of AS/NZS 3500 *Plumbing and drainage* set series.

Changes have occurred to Parts 1, 2, 3 & 4 of the AS/NZS 3500 series which will become enforceable on May 1 2019 with the release of the PCA 2019. However only Parts 1, 2 and 4 are referenced in the main body of the Code. Look for AS/NZS Part 3 Stormwater references in the Tasmanian Additions and Variations Section of the Code.

Changes in brief

AS/NZS 3500.1:2018 Water services

The changes to this Standard include:

- Backflow prevention in fire services
- Plastic pipes and fittings installed in direct sunlight
- Non-drinking water services
- Circulatory heated water systems
- Clarification for jointing methods
- Minor technical changes

AS/NZS 3500.2:2018 Sanitary plumbing and drainage

The changes to this Standard include:

- Structural plastic re-lining of drains
- Plastic pipes and fittings installed in direct sunlight.

The revision covered a range of sanitary drainage topics but the major projects related to the inclusion of structural plastic re-lining of drains and the protection of plastic pipes and fittings installed in direct sunlight.

AS/NZS 3500.3:2018 Stormwater drainage

The changes to this Standard include:

- Syphonic drainage
- Rainwater tanks
- Bio-filtration
- Updates to formulas and rainfall maps
- Addresses new stormwater drainage technology.

The revision to AS/NZS 3500.3:2018 was undertaken to respond to changes in practice and technology.

AS/NZS 3500.4:2018 Heated water services

The changes to this Standard include:

- Provision for circulatory heated water systems

- Protection of plastic pipes and fittings installed in direct sunlight
- A clarification for jointing methods
- The inclusion of reference for thermostatically controlled taps
- An additional option for the orientation of solar water heaters.

NOTE: As of the release date of the 2019 PCA (1 May 2019) Tasmania has moved to apply the latest published edition of an applicable Australian Standard referenced within the PCA as enforceable unless noted otherwise. This move was prompted by the 3 year NCC amendment cycle which locked out Australian Standards updates until the third year the PCA revision became available to accommodate the change.

To get a copy of a Standard call 131 242 or visit infostore.saiglobal.com



Changes to technical standard for water and sewerage infrastructure



TasWater has updated and consolidated its legacy water connection drawings. A draft version was previously issued for comment in 2018 and these changes have now been included and drawings updated on the TasWater website at www.taswater.com.au. Additionally, a new set of DWG files has been created to assist with your drawing preparation. These new standards are effective from now, and all designs submitted from now on must comply with these new standards.

Requirements for sewer CCTV conduit inspections

The purpose of this document is to specify the requirements and considerations that must be met when undertaking a Closed-circuit television (CCTV) pipeline conduit inspection for TasWater (TW), including the return of the data. This document is intended to be used along with the WSA 05 2008 Standard, so both standards must be referenced for the completion of an inspection. Where there is contradiction or ambiguity with the WSAA code, the requirements listed within this document take precedence.

Addendums

There is a technical addendum which seeks to clarify the calculations for Peak Dry Weather (Sanitary) Flow in the Supplement. It is called Technical Addendum 01 – Revision 1 to TasWater Supplement to WSAA Gravity Sewerage Code of Australia – MRWA Edition (WSA-02-2014-3.1).

There are a range of other standards available by contacting TasWater, which include:

- Ultraviolet Disinfection for Drinking Water Treatment – Supplier Design Requirements - Technical Standard
- TWS-E-0013 – Rack Mounted UPS Wiring Schematic.

Have a question?

You can find these documents and updates at the TasWater website at www.taswater.com.au under Development > Technical Standards. Please address all enquiries or issues regarding TasWater's standards to: standards@taswater.com.au



Dial Before You Dig (DBYD)



CONNECTIONS

Feedback

Your feedback is important to us.

If you would like to comment on Connections, please contact us at:

CBOS.info@justice.tas.gov.au OR

PO Box 56, Rosny Park TAS 7018

Ph: 1300 654 499

Fax: 03 6173 0205

Web: www.cbos.tas.gov.au

CONNECTIONS mailing list details

If you would like to be added to the mailing list, please email the following details:

Name:

Position/Title:

Organisation:

Postal address:

Phone:

If you would like to be removed from the mailing list or change details for the current subscription, please provide the new details or request by emailing CBOS.info@justice.tas.gov.au or ring 1300 654 499



Building in Tasmania



CBOS

Consumer, Building &
Occupational Services

Promoting a fair marketplace



CBOS is a member of 26TEN and we are working to make our website easier to read for busy people.

26TEN is Tasmania's campaign for adult literacy and numeracy. For more information visit www.26ten.tas.gov.au

Personal information we collect from you will be used by the Department of Justice for that purpose and may be used for other purposes permitted by legislation and policies administered by the Department of Justice. Your personal information may be disclosed to contractors and agents of the Department of Justice, law enforcement agencies, courts and other public sector bodies or organisations authorised to collect it. This information will be managed in accordance with the *Personal Information Protection Act 2004* and may be accessed by you on request to this Department.