Wednesday 2nd June 2021

HCAA & AHSCA QLD JOINT PRESENTATION

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HCAA™

Meeting Agenda

12PM – TOPIC 1 - NSW Legislation

Building and Development Certifiers Act 2018

The NSW Design and Building Practitioners Act 2020

12:30PM – TOPIC 2 - QLD Legislation

AHSCA QLD President - Chris Tritton, will be giving us insights into recent changes to QLD legislation and what they mean for us as consultants.

1:00PM – TOPIC 3 AS5601.1 – 2021? What can we expect

The New draft gas standard – what changes can we expect to see. Insights into the new draft standard.

1:30PM Meeting Closes

Standards News

BBQ bottles are changing – All Valves are being converted to include a new mandatory leak detection valve. The new valves will have a right hand thread but also have an internal left hand thread that will take an existing POL connection from an existing BBQ hose.

Transition Dates

~~Before 1 April 2021 (LPG Cylinder Valves)~~
~~The Type 27 valve becomes mandatory on new leisure cylinders~~

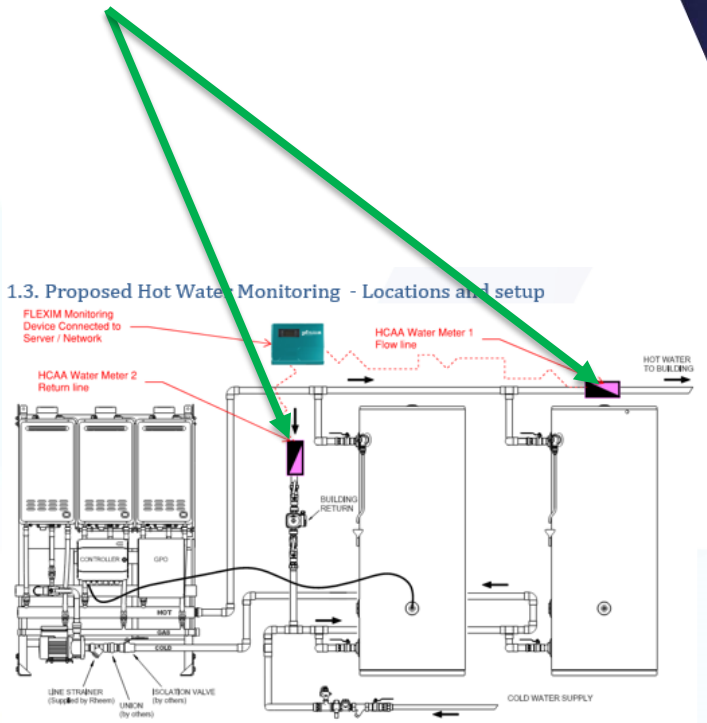
Before 1 October 2021 (LPG Leisure Appliances and LPG Regulators)
The Type 27 appliance connection becomes mandatory on appliances

Water Demand Project – Ongoing Research

BUSINESS CASE

HCAA WATER DEMAND INVESTIGATION
PHASE 2 – MAY 2021

RESIDENTIAL APARTMENT HOT WATER MONITORING



Progress Report

DEAKIN UNIVERSITY

Water Demand Project – Ongoing Research

Topic 2 – Water Demand

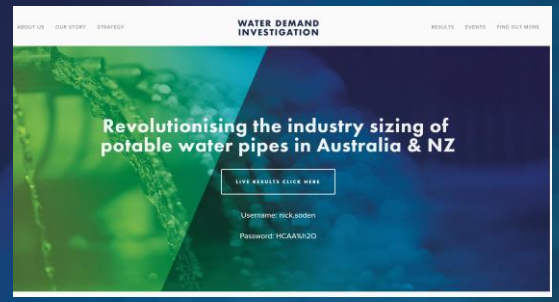
Sub-committee update

This update will cover the progress of the committee over the past year.

- It will also present data currently being gathered in a Sydney residential building; future plans for the Water Demand Sub-committee and; details on how the industry can improve result quality.
- www.waterdemand.com.au

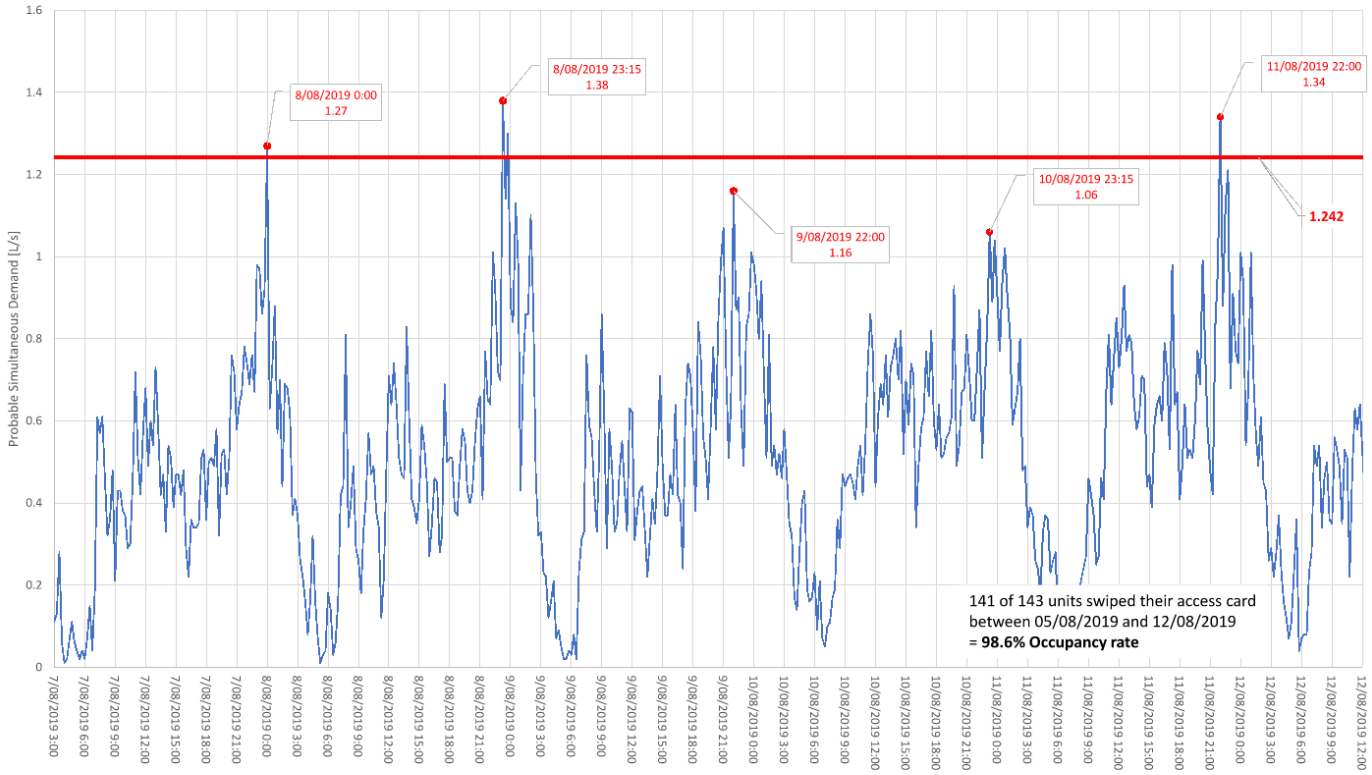
Presenter:
Jonathan Mousdell
WS&P

Progress Report

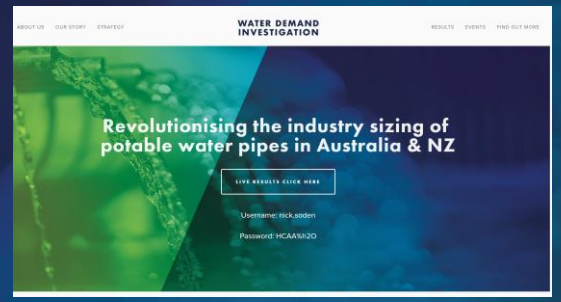


DEAKIN UNIVERSITY

Water Demand Project – Ongoing Research

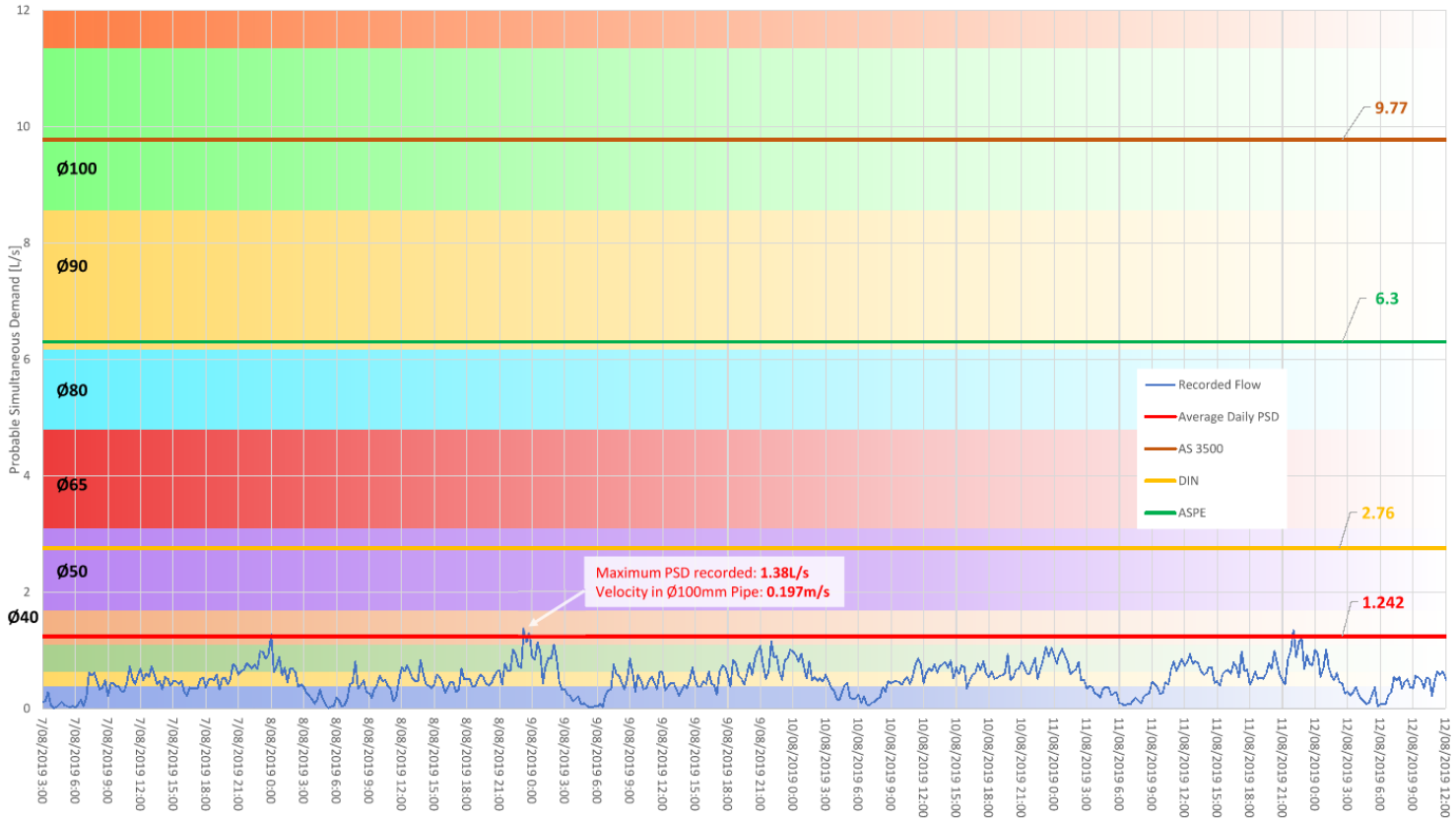


Progress Report



DEAKIN UNIVERSITY

Water Demand Project – Ongoing Research



Progress Report

DEAKIN UNIVERSITY

Warning – NSW Centric Information

If you do work in NSW please pay attention

High Level Summary of NSW Changes

Stage 1 – July 2020

All Building Classes – 2>10 must be signed off by a Registered “Fire Practioner” before a “CC” can be issued.

NSW Fair Trading

OR

FPA AUSTRALIA FPAS Fire Protection Accreditation Scheme

Building and Development Certifiers Act 2018.

↓

FIRE SERVICES – ALL BUILDINGS

$750> $1,750 a year

Stage 2 – July 2021

All Class 2 Buildings must be signed off by a Registered “Engineer or Practioner” in each relevant discipline before a “CC” can be issued**.**

Design and Building Practitioners Act 2020

NSW Fair Trading

↓

$400 a year

ALL SERVICES – CLASS 2(APARTMENTS) ONLY

Stage 1 – Building and Development Certifiers Act 2018

Nick Soden

From 1 July 2020, Design and Building Practitioners working on all class's(except houses) of buildings need to be registered as Fire Practioners

FIRE SERVICES – ALL BUILDINGS

CLASS 2 BUILDINGS

Class 2 buildings are apartment buildings. They are typically multi-unit residential buildings where people live above and below each other. The NCC describes the space which would be considered the apartment as a sole-occupancy unit (SOU).

Class 2 buildings may also be single storey attached dwellings where there is a common space below. For example, two dwellings above a common basement or carpark.

CLASS 3 BUILDINGS

Class 3 buildings are residential buildings other than a Class 1 or Class 2 building. They are a common place of long term or transient living for a number of unrelated people. Examples include a boarding house, guest house, hostel or backpackers (that are larger than the limits for a Class 1b building). Class 3 buildings could also include dormitory style accommodation, or workers' quarters for shearers or fruit pickers.

Class 3 buildings may also be "care-type" facilities such as accommodation buildings for children, the elderly, or people with a disability, and which are not considered to be Class 9 buildings.

CLASS 4 PART OF A BUILDING

A Class 4 part of a building is a dwelling or residence within a building of a non-residential nature. An example of a Class 4 part of a building would be a caretaker's residence in a storage facility. A Class 4 part can only be located in a Class 5 to 9 building.

CLASS 5 BUILDINGS

Class 5 buildings are office buildings that are used for professional or commercial purposes, excluding Class 6, 7, 8 or 9 buildings.

Examples of Class 5 buildings are offices for lawyers, accountants, general medical practitioners, government agencies and architects.

CLASS 6 BUILDINGS

Class 6 buildings are typically shops, restaurants and cafés. They are a place for the sale of retail goods or the supply of services direct to the public. Some examples are:

- A dining room, bar, shop or kiosk part of a hotel or motel
- A hairdresser or barber shop
- A public laundry
- A market or showroom
- A funeral parlour
- A shopping centre

CLASS 7 BUILDINGS

Class 7 buildings include two sub classifications: Class 7a and Class 7b.

Class 7a buildings are carparks.

Class 7b buildings are typically warehouses, storage buildings or buildings for the display o

CLASS 8 BUILDINGS

A factory is the most common way to describe a Class 8 building. It is a building in which a process (or handicraft) is carried out for trade, sale, or gain. The building can be used for production, assembling, altering, repairing, finishing, packing, or cleaning of goods or produce. It includes buildings such as a mechanic's workshop. It may also be a building for food manufacture, such as an abattoir. A laboratory is also a Class 8 building, even though it may be small in size. This is due to their high potential for a fire hazard.

CLASS 9 BUILDINGS

Class 9 buildings are buildings of a public nature.
Class 9 buildings include three sub classifications: Class 9a, Class 9b and Class 9c.

Class 9b buildings
may gather for socia
civil purposes. They

Fire Practitioners NSW

The Fire Protection Accreditation Scheme (FPAS) has now been formally approved under section 59 of the *Building and Development Certifiers Act 2018*.

"I hereby approve of the Fire Protection Association Australia (FPAA) to exercise the functions as an accreditation authority with respect to the accreditation of persons for purposes of the Act..."

This means that, **as of 1 July, 2020, practitioners must be accredited** if they wish to perform ' regulated work' under the *Environmental Planning and Assessment Regulation 2000* (EPAR).

FPAS has been recognised for:

- Fire Systems Design (FSD) - for practitioners who endorse plans and specifications in accordance with clauses 136AA and 146B of the EPAR; and
- Fire Safety Assessment (FSA) - for those who endorse essential fire safety measures on annual or supplementary fire safety statements under Part 9, Divisions 5 and 7 of the EPAR.

To perform these roles, practitioners will need to hold an accreditation number, unless they are designers who hold C8 certifier (electrical engineering) or a C14 (hydraulic certifier - buildings) registration with the Department of Customer Service.

The BPB are now formally Fair Trading

Effective 1st July 2020 the BPB are now closed and have become part of Fair trading

NSW GOVERNMENT

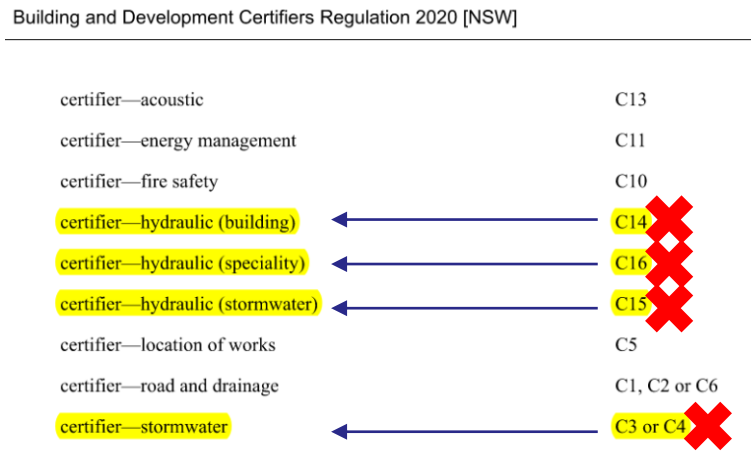
Kevin Anderson
Minister for Better Regulation and Innovation

MEDIA RELEASE

Wednesday, 3 June 2020

NSW GOVERNMENT DELIVERS HISTORIC BUILDING REFORMS TO RESTORE INDUSTRY CONFIDENCE

The NSW Government has delivered on its promise to restore public confidence in the building industry by successfully passing the *Design and Building Practitioners Bill 2019*.



Building and Development Certifiers Regulation 2020 [NSW]

certifier—acoustic	C13
certifier—energy management	C11
certifier—fire safety	C10
certifier—hydraulic (building)	C14
certifier—hydraulic (speciality)	C16
certifier—hydraulic (stormwater)	C15
certifier—location of works	C5
certifier—road and drainage	C1, C2 or C6
certifier—stormwater	C3 or C4

Certifier Hydraulic (Building)

Building and Development Certifiers Act 2018.

64 Certain registered certifiers may carry out certain regulated work

(1) For the purposes of section 55 of the Act—

(a) a registered certifier who holds an engineer—electrical class of registration may carry out regulated work comprising the endorsing of plans and specifications for relevant fire safety systems comprising a fire detection and alarm system, and

(b) a registered certifier who holds an engineer—mechanical class of registration may carry out regulated work comprising the endorsing of plans and specifications for relevant fire safety systems comprising a mechanically ducted smoke control system, and

(c) a registered certifier who holds a certifier—hydraulic (building) class of registration may carry out regulated work comprising the endorsing of plans and specifications for relevant fire safety systems comprising a hydraulic fire safety system.

Design Certification in NSW

Environmental Planning and Assessment Amendment Act 2017 No 60

Repealed version for 23 November 2017 to 1 March 2018 (accessed 9 June 2020 at 14:35)

Status information

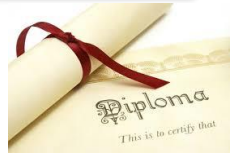
New South Wales

Building and Development Certifiers Regulation 2020

Current version for 25 March 2020 to date (accessed 9 June 2020 at 14:34)

Status information

New South Wales



Design of any Wet or Dry Fire Services

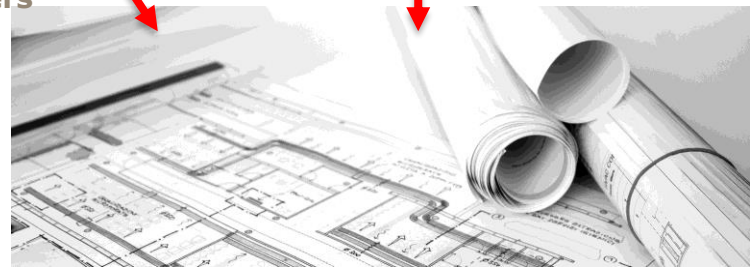
Fire Practitioner

FPAA FPAS Scheme
Short Course and Assessment
$1,750 Annual Renewal
Based on: FH/FHR & Sprinklers

Design of any Plumbing Systems Including Wet Fire

Certifier Hydraulic (Building)

Min Qualification – Diploma in hydraulics
3 Years Experience – 4 day Certification Course
$750 Annual Renewal – 10 Years Liability for designs



CFSP's are now "Fire Practitioners"

NSW GOVERNMENT | Fair Trading

Environmental Planning and Assessment Amendment Act 2017 No 60

Repealed version for 23 November 2017 to 1 March 2018 (accessed 9 June 2020 at 14:35)

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New South Wales

Building and Development Certifiers Regulation 2020

Current version for 25 March 2020 to date (accessed 9 June 2020 at 14:34)

Status information

New South Wales

Design of any Wet Fire Services

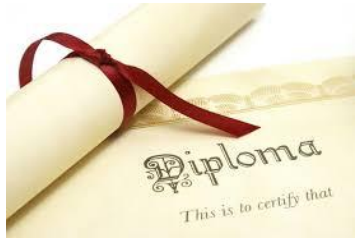
Fire Practitioner

Min Qualification moment but will

Nothing at the be required in 4 years

FPA AUSTRALIA

FPAS Fire Protection Accreditation Scheme



Min Qualification Diploma in hydraulics

Certifier Hydraulic (Building)

CFSP's are now "Fire Practitioners"

NSW GOVERNMENT | Fair Trading

Environmental Planning and Assessment Amendment Act 2017 No 60

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New South Wales

Building and Development Certifiers Regulation 2020

Current version for 25 March 2020 to date (accessed 9 June 2020 at 14:34)

Status information

New South Wales

Design of Dry Fire Services

Fire Practitioner

Min Qualification moment but will

Nothing at the be required in 4 years

FPA AUSTRALIA

FPAS Fire Protection Accreditation Scheme

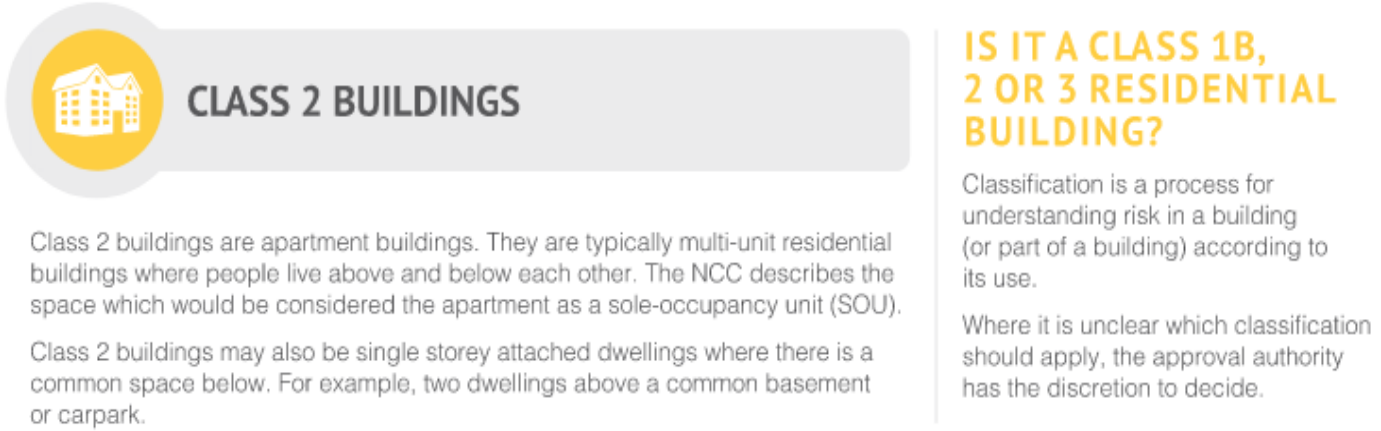
Engineer - Electrical

Min Qualification – Degree in Electrical Engineering
HCAA have requested the Fire Diploma also be recognised

Stage 2 – Design and Building Practitioners Act 2020

Shaun Wallace / Nick Soden

From 1 July 2021, Design and Building Practitioners working on class 2 buildings need to register under a new Compliance Declaration Scheme.



CLASS 2 BUILDINGS

Class 2 buildings are apartment buildings. They are typically multi-unit residential buildings where people live above and below each other. The NCC describes the space which would be considered the apartment as a sole-occupancy unit (SOU).

Class 2 buildings may also be single storey attached dwellings where there is a common space below. For example, two dwellings above a common basement or carpark.

IS IT A CLASS 1B, 2 OR 3 RESIDENTIAL BUILDING?

Classification is a process for understanding risk in a building (or part of a building) according to its use.

Where it is unclear which classification should apply, the approval authority has the discretion to decide.

Design and Building Practitioners Act 2020

What are the changes

Certain designs will need to be declared for compliance with the Building Code of Australia and other relevant standards before building work can start, and declared designs will need to be lodged on the NSW Planning Portal. Builders must then construct according to those designs.

Developers will be required to rectify design issues before construction begins – saving everyone involved time and money, and avoiding disappointment and stress for customers.

Design and Building Practitioners Act 2020

Who needs to be registered

Design and Building Practitioners working on class 2 buildings or buildings with a class 2 part need to register to declare certain designs or building work, and lodge documents on the NSW Planning Portal.

Registration classes:

- Design Practitioners (18 Classes)
- Principal Design Practitioners (2 Classes)
- Building Practitioners (3 Classes)

Design and Building Practitioners Act 2020

Design Practitioner – HCAA Relevant Classes

- Design Practitioner – Drainage

Prepare regulated designs and make compliance declarations in relation to stormwater drainage and roof drainage systems for a building with a rise in any number of storeys

- Design Practitioner – Drainage (restricted)

Prepare regulated designs and make compliance declarations in relation to stormwater drainage and roof drainage systems for a building that has a rise in storeys of no more than 6.

Design and Building Practitioners Act 2020

Design Practitioner – HCAA Relevant Classes – Continued

- Design Practitioner – Fire Systems (fire sprinkler)

Prepare regulated designs and make compliance declarations in relation to a fire sprinkler system for a building.

- Design Practitioner – Fire Systems (fire hydrant and fire hose reel)

Prepare regulated designs and make compliance declarations in relation to a fire hydrant or fire hose reel system for a building, including a portable fire extinguisher system

Design and Building Practitioners Act 2020

Design Practitioner – Drainage – HCAA Relevant Qualifications and Experience

Must be registered as a Professional Engineer, Civil and/or Mechanical or have completed one of the following qualifications.

- A Diploma of Hydraulic Services Design from an NVR registered training organisation that has the qualification listed on its scope of registration on the National Register under the *National Vocational Education and Training Regulator Act 2011*; or
- A 4 year full-time or equivalent part-time undergraduate bachelor degree that has been accredited by a body that is a signatory to the Washington Accord in either Civil Engineering, Mechanical Engineering or Engineering (with a major in Civil or Mechanical)

Design and Building Practitioners Act 2020

Design Practitioner – Drainage – HCAA Relevant Qualifications and Experience – Continued

Must have 5 years practical experience which is:

- Recent – being at least 5 years, or equivalent part-time, experience within the last 10 years, including at least 2 years Australian experience.
- Relevant – being experience relevant to the class of registration involving a class 2, 3, 9a or 9c building

Design and Building Practitioners Act 2020

Design Practitioner – Drainage (Restricted) – HCAA Relevant Qualifications and Experience

Must have completed the following qualifications.

- A Certificate IV in Plumbing and Services from an NVR registered training organisation that has the qualification listed on its scope of registration on the National Register under the *National Vocational Education and Training Regulator Act 2011*;

Must have 5 years practical experience which is:

- Recent – being at least 5 years, or equivalent part-time, experience within the last 10 years, including at least 2 years Australian experience.

Design and Building Practitioners Act 2020

Design Practitioner – Drainage (Restricted) – HCAA Relevant Qualifications and Experience – Continued

- Relevant – being experience relevant to the class of registration involving a class 2, 3, 9a or 9c building

Design and Building Practitioners Act 2020

Design Practitioner – Fire Systems (Fire Sprinkler, Fire Hydrant and Fire Hose Reel) – HCAA Relevant Qualifications and Experience

Must meet the qualification requirements of one of the three pathways.

Pathway 1

- A Diploma of Fire Systems Design (CPC50509) from an NVR registered training organisation that has the qualification listed on its scope of registration on the National Register under the *National Vocational Education and Training Regulator Act 2011* including successful completion of certain competency units

Design and Building Practitioners Act 2020

Design Practitioner – Fire Systems (Fire Sprinkler, Fire Hydrant and Fire Hose Reel) – HCAA Relevant Qualifications and Experience – Continued

Pathway 2

- A Engineering degree from an Australian university or a qualification under a program accredited by Engineers Australia including successful completion of particular units of competency; or

Design and Building Practitioners Act 2020

Design Practitioner – Fire Systems (Fire Sprinkler, Fire Hydrant and Fire Hose Reel) – HCAA Relevant Qualifications and Experience – Continued

Pathway 3

- A Diploma of Hydraulic Services Design from an NVR registered training organisation that has the qualification listed on its scope of registration on the National Register under the *National Vocational Education and Training Regulator Act 2011*; or

Must have 5 years practical experience which is:

- Recent – being at least 5 years, or equivalent part-time, experience within the last 10 years, including at least 2 years Australian experience.

Design and Building Practitioners Act 2020

Design Practitioner – Fire Systems (Fire Sprinkler, Fire Hydrant and Fire Hose Reel) – HCAA Relevant Qualifications and Experience – Continued

- Relevant – being experience relevant to the class of registration involving a class 2, 3, 9a or 9c building

Design Practitioner – Fire Systems (Fire Sprinkler) and Fire System (Fire Hydrant and Fire Hose Reel) both have transitional arrangements for the three qualification pathways

Design and Building Practitioners Act 2020

Regulated designs and variations

These are the designs prepared for a building element, or a performance solution, for building work.

Building work refers to the construction; alteration or addition; or the repair, renovation or protective treatment of a class 2 building.

A performance solution is a tailored solution to meet the performance requirements in the Building Code of Australia.

For this scheme, building element means any of the following:

- fire safety systems
- waterproofing

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

- building structure
- building enclosure
- building services.

Each regulated design must be prepared by a registered Design Practitioner and be lodged onto the NSW Planning Portal by the Building Practitioner. A standard title block will be required and used by the NSW Planning Portal to extract data relating to the design. The title block will be available to practitioners soon and provided in a .dwg format so that it can be included in AutoCAD systems.

To ensure compliance and quality of the documents lodged, auditing is planned to start from September 2021.

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

All variations related to a building element or performance solution will require an authorised Design Practitioner, not limited to the original designer, to prepare (or coordinate or supervise the preparation of) and declare a new design.

Variations to an aspect of a regulated design unrelated to a building element or performance solution do not need to be signed off by a Design Practitioner but must be recorded by the Building Practitioner in a variation statement.

Variations on regulated designs must be lodged on the NSW Planning Portal within one day of the variation alongside the design compliance declaration form. Work may need to stop so that the varied design can be prepared and declared within this this timeframe.

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

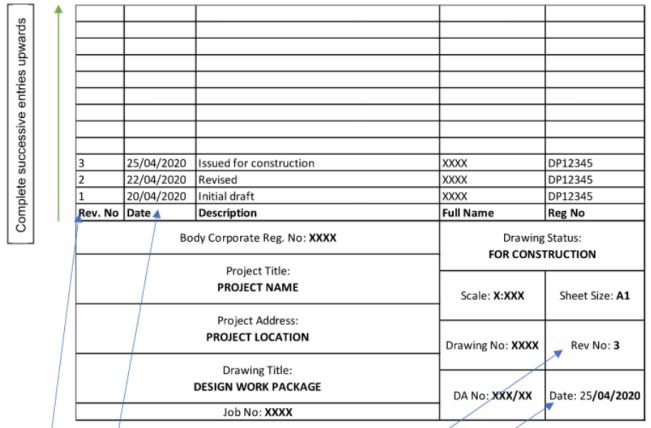
Variation statements will need to be lodged prior to the application for an Occupation Certificate and must not include any variations that are building elements or performance solutions.

See extracts below from the ‘draft’ regulated design guidelines for design practitioners

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

Design Practitioner Title Block



Body Corp Reg No	If the design has been prepared and declared on behalf of a registered body corporate design practitioner, the registration number of the body corporate.
Project Title:	The project name.
Project address:	The address of the project for the designed building works.
Drawing Title	Must correspond with the drawing number referenced in the Design Compliance Declaration.
Job No.	The Design Practitioner's reference for the job no.
Drawing status:	For example 'For Construction– variation'.
Scale	The scale of the drawing. This is not applicable if the design is a report.
Sheet Size	The sheet size if the design is a scaled plan/drawing. This is not applicable if the design is a report or specification.
Drawing No	Must be a unique number to identify it from other regulated designs by the Design Practitioner for the building. Must correspond with the drawing number referenced in the Design Compliance Declaration.
Rev. No.	The version of the design. The original will be 1 and the first variation will be 2.
DA No	The Development Application number.
Date	This date should be the same as the corresponding Design Compliance Declaration for the design.
Rev No.	The first design will be numbered 1, and be completed on the lowest blank cell with subsequent entries being completed above. The first variation will be numbered 2.
Date	The date of the design. Previous entries will be shown in the cells below. The most recent design will be in the highest completed cell and should correspond with the date in the cell on the bottom right corner.
Description	Description of the design and the variation.

Full Name	This is the name of the individual design practitioner who has prepared the design and must be the same individual who made the declaration for the design (including where the declaration has been made on behalf of a body corporate)
Reg No	The registration number of the individual design practitioner referred to in the previous cell.

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

Class of design: Drainage (prepared by a registered design practitioner in the class of hydraulic engineering)				
1:500	Services masterplans	Routes of pipework, pits and cabling on the site Identify those services that are unable to be concealed	TBC	N/A
		All distribution methods and arrangements for the Utilities		
1:100	Stormwater systems designs	Downpipes Rainwater harvesting Stormwater connection (prepared by a civil engineer) Designs to demonstrate compliance with any special planning permit conditions Single line diagrams for rainwater and stormwater infrastructure mains plans and building servicing stormwater drainage stacks dropping to points of discharge stormwater overflow path	F and AS/NZS3500.3	N/A
	Other	tundishes and floor wastes for collection of condensate from air conditioning systems		

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

Class of design: Fire safety systems (prepared by a registered design practitioner in the class of fire safety system)				
1:500	Fire Safety Services masterplans	For hydraulic fire systems: System block plans and system schematics showing water supplies, pumps, booster connections and other arrangements to the satisfaction of the Water Authority, the Fire Brigade and BCA. For detection and alarm systems: system block plans Fire systems control matrix	TBC	
1:100	Fire safety systems generally	Plans Scaled sections and elevations Specifications Controls and single line diagrams Baseline data	C, E	Minimum requirements for design category: This covers the systems listed in detail below including extinguishers, hydrants, hose reels, sprinklers, tanks and pumps, detection & alarm systems, BOWS and interface to BMS and other systems controlled by the detection system, mechanical services, duct dampers, magnetic hold open devices, lifts and any other essential fire safety measure listed in Clause 166 of the EP&A Reg.
1:100	Portable fire extinguishers	Locations, specifications, Warning and operational signs	E, AS 2444	
1:100	Fire hydrant system plans and hose reel and hydrant coverage	Fire hose reel systems Fire hydrant systems For combined systems: Completed hydrant and sprinkler pipework layoutinternal plans, including fire hydrant, fire hydrant head locations, hose reel and sprinkler pipes' risers supply and return from intake valves or plant rooms to relevant floor take-offs and associated isolation valves for fire sprinklers, hydrants and hose reels, boosters, as required Warning and operational signs	E AS2419.1, AS 2441, AS2118.6	

Design and Building Practitioners Act 2020

Regulated designs and variations – Continued

1:100	Sprinkler system plans	For combined systems: Completed hydrant and sprinkler pipework layout internal plans, including fire hydrant, hose reel and sprinkler pipes' risers supply and return from intake valves or plant rooms to relevant floor take-offs and associated isolation valves for fire sprinklers, hydrants and hose reels, as required Scaled sprinkler valve rooms, including risers supply and return from intake valves or plant rooms to relevant floor take-offs and associated isolation valves for fire water, and fire sprinkler control valves, isolation valves and drain down points, including water capture and recycling	E AS 2118.1, AS 2118.4, AS2118.6, AS2118, FPAA101H or FPAA101D	
1:50 or 1:20	Fire water supply tanks and pumps	Pump rooms and infrastructure	C, E, AS 2118.1;	
1:100	Water supply for fire systems, including reduced pressure zone devices (RPZs)		AS3500	
1:100	Automatic smoke-and-heat vents	Automatic smoke exhaust system or automatic smoke and heat vents fire compartments Fire and smoke damper locations	E2 AS 2665	
	Special hazards plans			

Design and Building Practitioners Act 2020

Eligibility Requirements

You must prove that you:

- meet the qualification, knowledge, skills and experience requirements
- have successfully completed the pre-registration learning requirements
- are at least 18 years of age
- are a suitable person to carry out the work
- meet insurance requirements
- pass a national police check

Design and Building Practitioners Act 2020

How to get registered

From 1 July 2021, you can apply to register on the Service NSW website but there are two important points:

1.Design, Principal Design and Building Practitioners – as long as you register before you need to declare or lodge a document, you don't need to register on 1 July 2021.

2.Only the person who will be declaring or lodging documents needs to register.

Design and Building Practitioners Act 2020

Deemed Registration

From 1 July to 31 December 2021, there will be a transitional period where you will be ‘deemed’ registered – so you can keep working.

A deemed registration means you will receive a registration ID and can keep working while we assess your application.

After assessment, you’ll be notified as to whether you can keep your registration for one, three or five years (start date is date of application); or whether your deemed registration has been cancelled because you were not eligible.

If your application is successful, your registration ID will stay the same.

If you apply after 31 December 2021, you will need to stop declaring or lodging documents while you wait for your application to be assessed and approved.

Design and Building Practitioners Act 2020

Transitional Arrangements

If building work **hasn't started** under a particular complying development certificate or construction certificate before 1 July 2021, then the new rules apply regardless of whether your construction certificate or complying development certificate was issued before or after 1 July 2021.

If building work **has started** before 1 July 2021, the new rules don't apply to the work that has started under that construction or complying development certificate. However, the designs you have relied upon will still need to be lodged. Any subsequent building work started on another certificate after 1 July 2021 will need to comply with the new rules.

Design and Building Practitioners Act 2020

Transitional Arrangements – Continued

Where building work has started under a construction certificate or complying development certificate before 1 July 2022, there is a transitional period for projects where building work is carried out in the first 12 months, allowing building work to be carried out after lodgement of the regulated designs and declarations for the particular construction or complying development certificate, rather than the entire building. This staged lodgement can continue for the life of the project.

Where designs have been prepared before 1 July 2021 by a practitioner who is not eligible for registration, those designs will need to be reviewed and a certificate provided that they comply with the Building Code by a registered Design Practitioner. The Design Practitioner can provide the Certificate even if they were not involved in supervising or coordinating the design.

Design and Building Practitioners Act 2020

Transitional Arrangements – Continued

From 1 July 2022, the transitional period ends. For projects where the first building work was carried out after 1 July 2022, all regulated designs will need to be declared before any building work can start at all, including where the designs were prepared before 1 July 2021. By enabling a holistic view of design, we are improving industry practices at the start of the building process.

Design and Building Practitioners Act 2020

How to prepare for 1 July

Here are some things you can do to prepare for 1 July 2021.

- proof of identity (two types) – the Service NSW application form will step you through what types of identity will be accepted for registration
- to complete and pass:
  - Design and Building Practitioners Act 2020 learning module (available from May on the Construct NSW Digital Learning Platform)
  - The Value of Australian Standards learning module (available now on the Construct NSW Digital Learning Platform)

Design and Building Practitioners Act 2020

How to prepare – Continued

- a police check – you may do this through the Service NSW National Police Certificate - Name and Date of Birth or choose your own provider
- if you hold an existing licence in your field of work, make sure those licence details are up to date and match your proof of identity documents
- a copy of your degree, postgraduate degree, diploma or NVR* course certificate. In some cases, a transcript may be required – check eligibility requirements.

** National Vocational Education and Training Regulator Act 2011*

Note, there will be additional requirements to prove you are eligible. Please keep checking the NSW Fair Trading list as it will be updated in the lead-up to 1 July 2021.

Design and Building Practitioners Act 2020

Code of Practice

Comply with a Code of practice that sets out required professional and ethical standards.

The Code includes the duty to:

- act in a professional manner
- act within their level of competence and expertise
- maintain satisfactory level of competence
- avoid conflicts of interest
- maintain confidentiality.

More information about code of practice is published in Schedule 4 of the Design and Building Practitioners Regulation 2021.

Design and Building Practitioners Act 2020

To maintain registration

You must complete at least three hours of approved and relevant education and training each year to maintain registration.

Continuing Professional Development (CPD) hours must be earned by undertaking courses available from the Construct NSW Digital Learning Platform and the Australian Building Codes Board National Construction Code CPD system.

Written records, such as certificates of completion or records of attendance, should be kept as evidence.

Design and Building Practitioners Act 2020

Record keeping

Practitioners need to keep records in a form that can be readily inspected for at least 10 years, even if they cease to be a registered practitioner.

More information about record keeping is published in Part 7 of the Design and Building Practitioners Regulation 2021.

Design and Building Practitioners Act 2020

Insurance

There is a transitional period for insurance requirements. While adequate insurance is recommended, from 1 July 2021 to 30 June 2022, there are no additional, mandatory insurance requirements for Design Practitioners, Principal Design Practitioners and Building Practitioners under the new scheme.

Design and Building Practitioners Act 2020

Registration Fees

Registration fees for Design Practitioners – Level 2

The following fees are the proposed registration, renewal, restoration and variation fees for a Design Practitioner in the following classes only:

- Design Practitioner – Building Design (Low Rise)
- Design Practitioner – Building Design (Medium Rise)
- Design Practitioner – Drainage
- Design Practitioner – Drainage (Restricted)
- Design Practitioner – Façade
- Design Practitioner – Fire Systems (Detection and Alarm Systems)
- Design Practitioner – Fire Systems (Fire Sprinkler)
- Design Practitioner – Fire Systems (Fire Hydrant and Fire Hose Reel)
- Design Practitioner – Fire Systems (Mechanical Smoke Control)
- Design Practitioner – Vertical Transportation

Design Practitioner – Level 2		
Fee Type		**Proposed Fee ($)**
Application	1 year	440
	3 years	990
	5 years	1,650
Renewal	1 year	330
	3 years	742
	5 years	1,237
Restoration	1 year	385
	3 years	797
	5 years	1,293
Variation		186

Design and Building Practitioners Act 2020

Registration Fees – Continued

The following fees are the proposed registration, renewal, restoration and variation fees for a Professional Engineer in the following classes:

- Professional Engineer – Civil
- Professional Engineer – Electrical
- Professional Engineer – Fire Safety
- Professional Engineer – Geotechnical
- Professional Engineer – Mechanical
- Professional Engineer – Structural.

Professional Engineers		
Fee Type		**Proposed Fee ($)**
Application	1 year	592
	3 years	1,332
	5 years	2,219
Renewal	1 year	444
	3 years	999
	5 years	1,665
Restoration	1 year	499
	3 years	1,054
	5 years	1,697
Variation		254

Design and Building Practitioners Act 2020

Complete the online learning modules

Before registering, Design and Building Practitioners must complete and pass two online learning modules:

1. The value of Australian Standards module
2. Navigating the Design and Building Practitioner (DBP) legislation module

The modules aren't mandatory for Professional Engineers, but you can complete them to learn more about the changes.

Tip: Make sure to **keep your module certificates** as proof of completion – you'll need these when you register.

Complete the modules online

4

Design and Building Practitioners Act 2020

Gather your documents for registration

To register online from 1 July, you'll need to **submit documents** including:

- Proof of identity
- A police check
- A copy of your degree or other qualifications

You'll also need to provide evidence of your recent and relevant work experience.

Read registration information for Design and Building Practitioners

Read registration information for Engineers

5

5

Fortnightly CPD Sessions

Every Second Tuesday 12pm-1pm via ZOOM

- 01 June - Aquip, Clamp on Ultrasonic Metering
- 15 June - Victaulic, subject TBC
- 29 June - ACO, subject TBC
- 13 July - Green Drains, subject TBC
- 27 July - Pure Tec Group - Sustainable Water Quality Solutions
- 10 August - HIFraser, subject TBC
- 24 August - Conex Universal, subject TBC

HCAA™

Topic 2 – TOPIC 2 - QLD Legislation

Chris Tritton – AHSCA QLD

What changes have occurred in Queensland over the past 1-2 years?

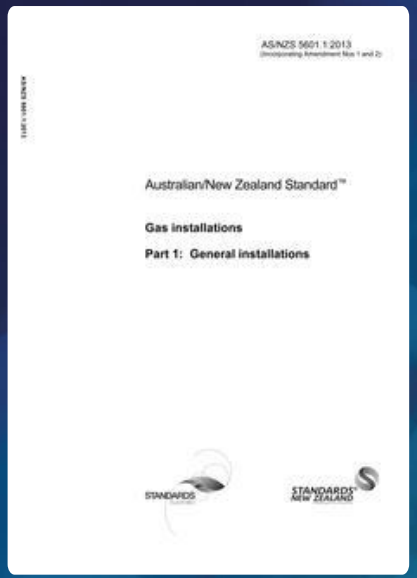
Queensland Government

Topic 3 – AS5601.1 – 2021?

What can we expect?

Nick Soden

The New draft gas standard – what changes can we expect to see. – Insights into the new draft standard.



The NSW Gas and Electricity (Consumer Safety) Regulation 2018 was changed on 26 March 2021.

This change is important for gas installations and designs in NSW, as it now brings us in line with other states in Australia by bringing into force any new version of the gas standard as soon as it is published.

Part 10 Gas and autogas installations - standards for gasfitting work and autogas work

39 Gasfitting work to comply with certain standards

(1) For the purposes of section 34(b) of the Act, each of the following standards is prescribed for the type of gasfitting work to which the standard applies:

(a) the Australian and New Zealand Standard entitled AS/NZS 5601.1:2013, Gas installations, Part 1: General installations,

(b) AS/NZS 5601.2,

(c) the Australian and New Zealand Standard entitled AS/NZS 1596:2014, The storage and handling of LP Gas,

(d) the Australian Standard entitled AS 4041—2006, Pressure piping.

(2) For the purposes of this clause, if a standard mentioned in subclause (1)(a)–(c) is amended or a new version of the standard is published, gasfitting work is taken to comply with the standard, as prescribed for that type of work by subclause (1), if it complies with the standard:

(a) as in force when the work is carried out, or

(b) as in force immediately before the amendment or publication, if the work is carried out during the 6-month period commencing on the date of the amendment or publication

AS/NZS 5601.1:2020(DRAFT)

AS/NZS 5601.1:2020(DRAFT)

Major changes from AS/NZS 5601.1:2013 include the following:

(A) New definition for an "ignition source".

(B) Section 2 has been separated into "Essential safety requirements" and "Performance based design requirements".

(C) Brazing prohibited within 1 m of a joint with non-metallic components.

(D) New drawings for consumer piping located in cavities.

(E) Prohibition on the installation of multilayer pipe above ground external to buildings

(F) Provision of emergency isolation for multilayer pipe including a new definition for a fire safety system.

(G) Increased clearance requirement between domestic cooking appliances and rangehoods to align with IEC 60335-2-31, *Household and similar electrical appliances – Safety, Part 2-31: Particular requirements for rangehoods and other cooking fume extractors.*

(H) Prohibition on the use of semi-rigid connectors in the installation of commercial catering equipment.

(I) New requirements for the protection of combustible surfaces adjacent to commercial catering equipment.

(J) New pipe sizing graphs and tables based upon the Churchill friction factor equation.

(K) Effect of altitude on gas supply pressure for high rise building installations.

(L) Revised requirements for the location of flue terminals under a covered area, in a recess, or on a balcony.

(M) New requirement for the isolation of installations in educational institutions.

(N) New requirements for freestanding commercial catering equipment with under-equipment connection.

(O) New requirements for the connection of freestanding commercial catering equipment using a hose assembly.

Multilayer pipe – Class 1 Building

1.3.77
Multilayer pipe
pipe comprising of stress-designed polymeric layers, including one or more stress-designed metallic layers (e.g., PE-X/AL/PE)
Note 1 to entry: Also known as “composite pipe” and “macro-composite pipe”.

Provision of fire emergency isolation for multilayer pipe

Where *multilayer pipe* is used as part of *consumer piping,* the following requirements for fire emergency isolation shall apply:

Multilayer pipe

a) For a **Class 1 buildings** in Australia, or detached or multi-unit dwellings in New Zealand, with **a *consumer piping* volume of less than 30 L,** the method of isolation shall be either a *fire safety system* or an under-pressure cut-off device (commonly known as an "**UPSO**") that meets the requirements of AS 4632 and is in a readily accessible location as close as practicable to the point of supply and prior to any multilayered pipe.

Pipe Diameter	Length	Litres
20mm	184m	29.97L
25mm	117m	29.77L
32mm	70m	29.59L

UPSO <30L Class 1 Dwelling

Multilayer pipe – Any other Building

b) For any other building, or where the *consumer piping* volume is greater than 30 L:

i. **The installation shall be fitted with a system that will shut off the gas supply when the fire safety system operates.**

ii. The method of isolation shall be a single **class 1 *safety shut off valve***, that meets the requirements of AS 4629 and automatically isolates the gas flow to the building when de-energized. This valve shall –

- **A. operate only when the fire safety system operates; and**
- **B. be located prior to any multi-layered pipe or as close as practicable to the gas supply point to the building, and be readily accessible**

iii. The system shall provide pressure proving of the downstream installation prior to restoration of the gas supply.

NOTE 1: Multilayer piping has less durability and mechanical strength than metallic piping when subjected to fire.

NOTE 2: Class 1 buildings are defined in the National Construction Code.

GSSV Interlocked to Smoke Detectors or fire alarm system – All other situations

Multilayer pipe – Reversion Fittings

Class 1 Dwellings

Reversion fittings for proprietary multilayer piping

In installations, in Class 1 buildings in Australia, or detached or multi-unit dwellings in New Zealand, **where a proprietary multilayer piping system having a *main run* exceeding 10 m in length and connected to more than one *appliance* is being installed, reversion to standard thread conforming to AS ISO 7.1, BSPT, or a standard annealed copper tube, shall be provided at both of the following *accessible* locations:**

(a) In the *main run* immediately prior to the first branch take off point.

(b) In the *main run* immediately prior to the last branch take off point.

Brazing, welding or annealing shall be conducted in accordance with the *manufacturer's specifications*, but shall be not be less than 1 m from a joint with non-metallic components.

NOTE 1: An example is shown in Figure 5.2.11(a).

NOTE 2: Figure 5.2.11(b) and Figure 5.2.11(c) show acceptable reversion options for conformance to this Clause.

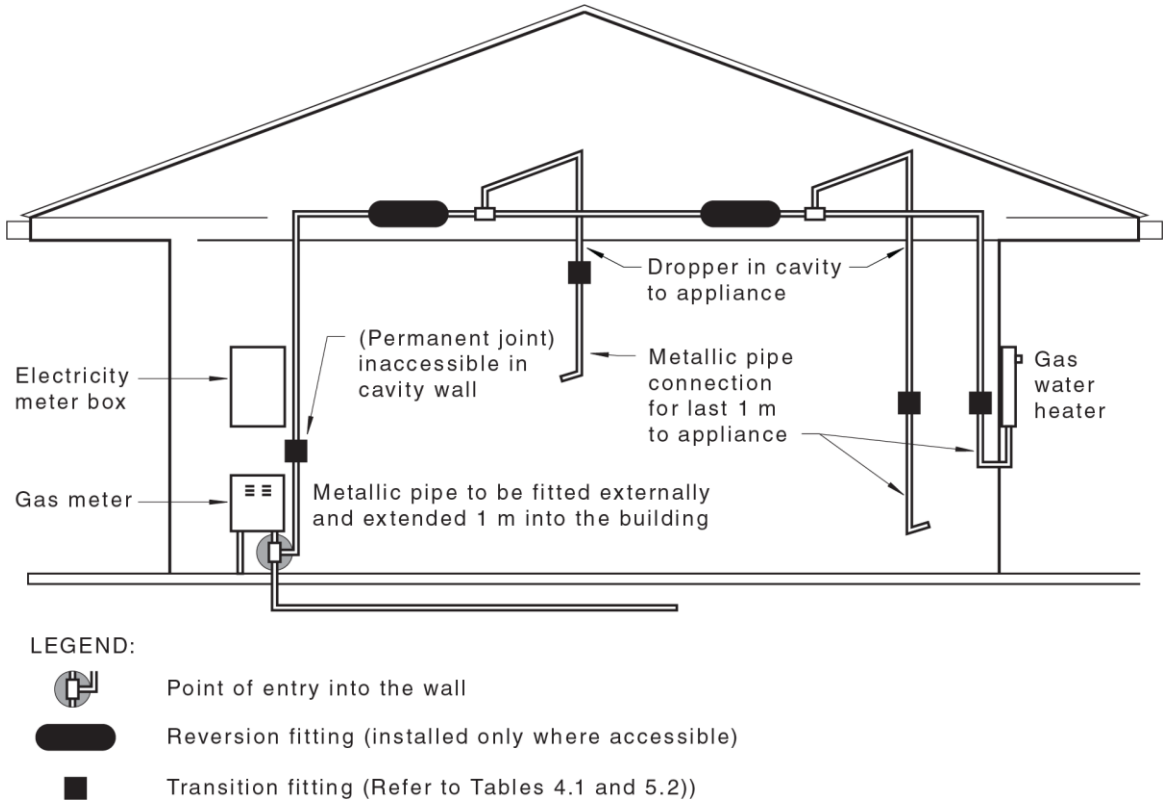
NOTE 3: The reversion fitting may be incorporated in the upstream side of the branch take off fitting.

NOTE 4: **The intent is to allow for future extension or connection to a non-compatible piping system to protect the consumer/end user from difficulties that may arise from non-availability of the proprietary system.**

NOTE 5: For definition of Class 1 building, see the National Construction Code (NCC).

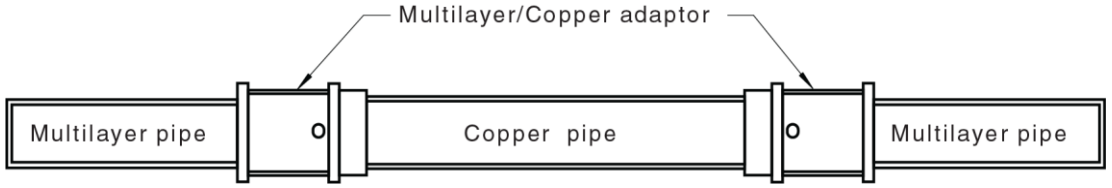
Multilayer pipe – Reversion Fittings

Class 1 Dwellings

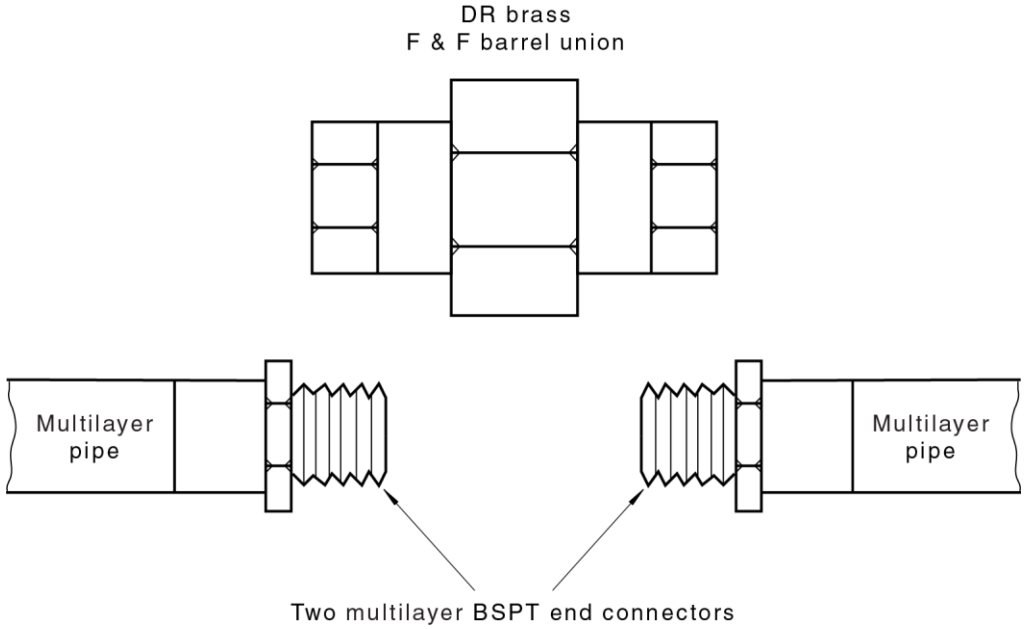


Multilayer pipe – Reversion Fittings

Class 1 Dwellings



(b) Reversion to copper tube



(c) Reversion to standard thread

Figure 5.2.12 Multilayer piping system — Reversion fittings

Location of appliances – in single residential premises

Location of appliances in single residential premises

Appliances in single residential *premises* shall be located such that any additional means of access as indicated in Clause 6.3.12.3 is not required.

NOTE: Local workplace health and safety (WHS) requirements should be considered for future servicing, replacement and maintenance of appliance(s).

Appliance on roof, wall or elevated structure in locations other than single residential premises

When an *appliance* is to be located on a roof, wall or elevated structure, the following shall apply:

(b) **The *appliance* shall be installed more than 1.5 m from the edge of the roof or structure** unless the edge of the roof or structure has a parapet wall or an alternative means of fall protection,

(c) Where an *appliance* is mounted on a wall, **the height of the base of the appliance from the ground or floor level shall not exceed 2.5 m** unless a permanent means of access or another means of access which is acceptable to the local WHS Regulator is provided, that can be arranged by the body corporation or its representative.

Flue Terminal –

under a covered area, in a recess or on a balcony

Flue terminal under a covered area, in a recess or on a balcony

Where a *flue terminal* is to be installed under a covered area, in a recess or on a balcony, ready dispersion of combustion products and avoidance of nuisance shall be achieved as follows:

(a) For partially or fully covered areas and recesses, which are not balconies and which are open on at least two sides, the *flue terminal* shall be located to ensure a free flow of air across it and conform to the requirements of Clause 6.2.5. The *appliance* shall be a *balanced flue appliance*, *room-sealed appliance*, a *fan-assisted appliance* or an *appliance* designed for *outdoor* installation.

(b) For partially or fully covered areas and recesses, which are not balconies and which are open on only one side, the *flue terminal* shall extend beyond the covered area and discharge towards the open side, in accordance with Figure 6.9.4(a) or Figure 6.9.4(b) respectively, to ensure that combustion products discharge to open atmosphere. The *flue terminal* shall be located to ensure a free flow of air across it and conform to requirements of Clause 6.2.5. The appliance shall be a *fan-assisted appliance*.

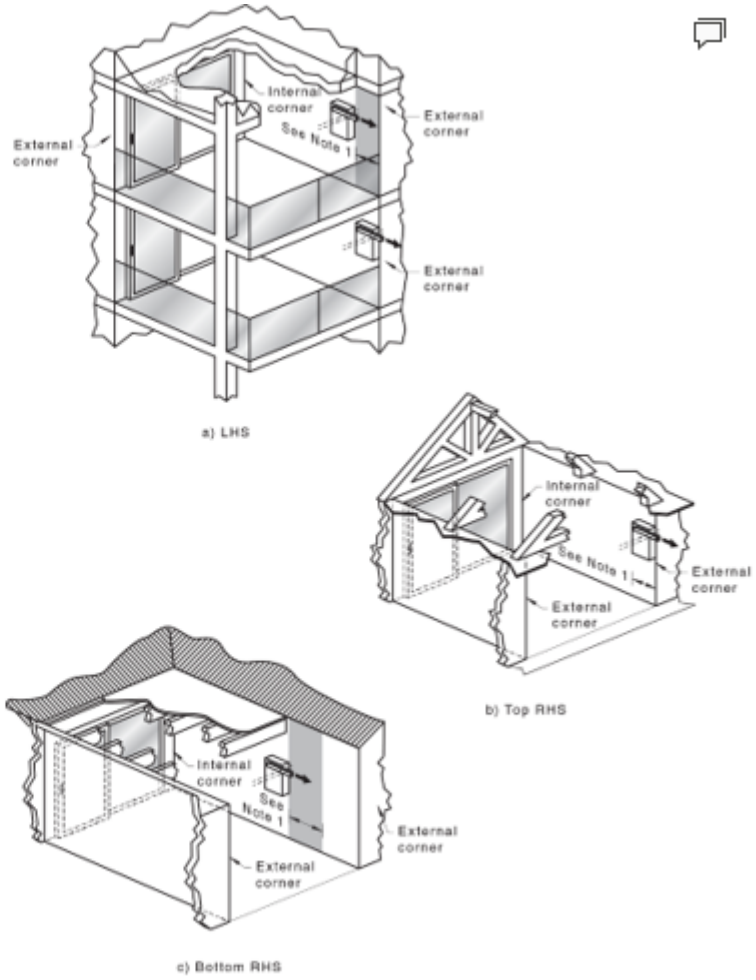
(c) For all balconies, regardless of the number of open sides and including partially covered balconies, the *flue terminal* shall extend beyond any covered area and discharge towards an open side in accordance with Figure 6.9.4(c) to ensure that combustion products discharge to open atmosphere. The *flue terminal* shall be located to ensure a free flow of air across it and conform to the requirements of Clause 6.2.5. The *appliance* shall be a *fan-assisted appliance*.

Flue Terminal –

under a covered area, in a recess or on a balcony

NOTE: There shall be no other flue terminals, gas meters, electricity meters, fuse boxes or openings into the building along the wall within the shaded area. Minimum horizontal clearances as per dimensions d, e, h, j and k of Figure 6.9.3 apply.

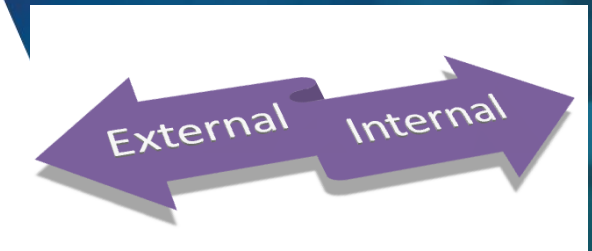
Figure 6.9.4 Location of *flue terminals* under a covered area, in a recess or on a balcony



PE and PEX above ground and external to a building and installed near an appliance

PE and PEX above ground and external to a building and installed near an appliance

Polyethylene/aluminium/ polyethylene (PE/AL/PE), cross-linked polyethylene/aluminium/ cross-linked polyethylene (PE-X/AL/PE-X) and cross-linked polyethylene/aluminium/ polyethylene (PE/AL/PE-X) multilayer pipe conforming to AS 4176.8	**Not permitted above ground external to a building. Shall terminate at least 1m from the nearest part of an appliance or some greater distance if required to prevent heat damage from the appliance** Ensure compliance with any instructions or warnings are in accordance with the *manufacturer's instructions* PE/AL/PE and PE/AL/PE-X shall not be used for applications where the operating temperature exceeds 60 °C. PE-X/AL/PE-X shall not be used for applications where the operating temperature exceeds 80 °C



Isolation for installations in educational institutions

Isolation for installations in educational institutions

In installations where a number of *appliances* without *flame safeguard systems* are used, such as a school laboratory, a means of isolation shall be fitted and include all of the following:

(a) A *readily accessible* quarter turn manual isolation valve at the inlet of the installation.

(b) **An electrically operated solenoid valve** to supply gas to the installation. The solenoid valve shall be controlled by a timing device set to the duration the installation is expected to operate.

(c) **A *readily accessible* emergency stop button** connected to the electrically operated valve with a key-operated reset function to ensure no gas flows to the installation after restoration of power following a power failure.

(d) Signage adjacent to the emergency stop button indicating its purpose (see Note).

(e) Operating instructions for the emergency stop button.

NOTE: Suggested wording for the signage is "GAS ISOLATION: Turn off when gas is not in use or in the case of emergency. Before turning on, ensure all the appliances (e.g., Bunsen burners) are turned off".

Effect of altitude on high rise installations

Compensation for the effect of altitude on *gas* supply *pressure* should be made in high rise buildings. An increase in altitude will result in an increase in *gas* supply *pressure* for lighter than air *gas*es such as NG. Conversely, for heavier than air *gas*es, such as *LP Gas*, an increase in altitude will result in a decrease in *gas* supply *pressure*.

Consideration should be given to the following:

1.(a) Selection of the correct inline and *appliance regulator*s;

2.(b) Correct adjustment of *operating pressure*s for *appliance*s on each floor level

3.(c)*Over-pressure protection* (see Clause 5.11.2)

A general rule of thumb is that for *Natural gas* (NG) the *pressure* will increase by approximately 0.5 kPa for every 100 m rise in altitude while for *LP Gas* the *pressure* will decrease approximately by 1 kPa for every 100 m rise in altitude.

thank you!