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Case for Endorsement

Plumbing and Fire Services Project

CPC Construction, Plumbing and Services Training Package

Release 6.0

Submitted by Artibus Innovation
on behalf of the Construction, Plumbing and Services IRC
August 2020

Artibus Innovation

Artibus Innovation is the Skills Service Organisation (SSO) supporting the Industry Reference Committees (IRCs) for the Construction, Plumbing and Services, and Property Services sectors in Australia. It develops, manages, and supports nationally recognised Training Packages.

The IRCs are responsible for providing guidance, direction, and advice in relation to the workforce training and skills development needs of these two industry sectors. Together industry, employees and enterprises contribute significantly to Australia's infrastructure, underpinning the nation's economic and social fabric.

Artibus Innovation
373 Elizabeth Street
North Hobart, Tasmania, 7000
Phone: (+61) 03 6218 2841
Email: enquiries@artibus.com.au
webpage: artibus.com.au

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Executive summary

Project overview

The Plumbing and Fire Services project has involved a comprehensive industry-led three-year review of 13 qualifications and over 150 units of competency. The Plumbing and Services sectors consist of highly regulated trades and occupations critical to the health and safety of the public and are an integral part of the construction supply chain.

The qualifications have high volume usage in the national training system, importantly contributing significantly to apprenticeship numbers. The project commenced in April 2017 with the objective to review and update the suite of qualifications and units of competency to:

1. the recommendations of a scoping report developed by the former Industry Skills Council (CPSISC)
2. the 2012 Standards for Training Packages
3. ensure they meet the needs of industry from a national perspective
4. ensure the training components are updated for currency and future focus.

With endorsement from the Construction, Plumbing and Service Industry Reference Committee (IRC), a Technical Advisory Group (TAG) was established to provide strategic advice on the development of the training package components.

The TAG was comprised of subject matters experts from; peak bodies, industry associations, unions, regulators, training providers and industry practitioners.

The TAG's guidance and input enabled the development of national qualifications and units of competency that support the industry and its workforce into the future.

Industry engagement and consultation

A range of strategies were employed throughout the lifecycle of the project to encourage input from all stakeholders across Australia. These included face-to-face interviews, forums, multiple digital channels, industry surveys, webinars and teleconferences.

Although industry provided feedback on all qualifications and units of competency, industry's attention was centred on the development of the Certificate III in Plumbing.

The redevelopment of this qualification has had to deal with a range of complexities arising from jurisdictional differences in both scope of work and regulatory frameworks across Australia.

Achieving national consensus on a set of nationally relevant and portable qualifications has proven challenging. The key sensitives relating to the activity are summarised in the table below.

Project sensitivities and issues

Sensitivity	Issue raised	IRC/TAG Response
1. Number of units packaged in the core Certificate III in Plumbing	The redeveloped Certificate III in Plumbing proposes an increase on the numbers of competencies required to achieve the qualification. State Training Authorities (STAs), training providers and training funds raised concerns regarding the increase of units required to achieve the qualifications. The increase of units has an impact on: a) **funding** – increase relating payable nominal hours b) **apprenticeship models** – employers in Queensland, for example, may not work with gas as part of their plumbing work and may find it difficult to offer this scope of work for apprentices which could impact on their willingness to employ apprentices c) **implementation** - of the qualification will take time.	Although funding and implementation were considered throughout the project, they are outside the scope of IRC and SSO. The detail of the proposed changes needs to be considered, because the overall effect on volume of learning and thus duration of training has not substantially changed. **Impact on funding:** units of competency are not 'equal' in terms of scope, breadth, depth and nominal hours. The total nominal hours for the current qualification is similar to the previous qualification, regardless of total unit numbers. **Impact on apprenticeships:** training providers can deliver gas-related training and assessment in a simulated environment. This is currently the case and therefore is not an introduced change. **Impact on implementation:** the IRC has agreed to support an extension to the current standard teach out period provided by ASQA to support implementation.
2. Gas units packaged in the core in the Certificate III in Plumbing	The proposed Certificate III in Plumbing includes nine (9) gas units in the core. Some State Training Authorities (STAs), regulators and training funds raised this concern throughout the consultation process. Packaging gas units in the core of the qualification poses challenges to employers and their ability to support apprentices achieving the units.	The project seeks to introduce a nationally recognised and portable qualification into a federation where every jurisdiction has different regulatory requirements. **Impact on apprenticeships:** training providers can deliver gas-related training and assessment in a simulated environment. This is currently the case and therefore is not an introduced change.

3. Regulations	Concerns were raised regarding potentially misalignment between the current licensing requirements across jurisdiction and the proposed updates of the plumbing and fire services qualifications and units of competency.	The scope of work that a plumbing and/or fire protection practitioner undertakes under a trade is dictated by the relevant regulatory body in each jurisdiction under the relative legislative framework for that jurisdiction – not a qualification. The introduction of an updated and/or new qualification does not normally remove the rights for existing licenced or registered practitioners. The relevant regulatory body is responsible to ensure licenced/registered plumbing practitioners upgrade to the new qualification (and this would normally coincide with a set timeframe).
4. Training package components relating to Fire protection	There is a long running industrial coverage dispute between the construction and property services sectors of the industry. Throughout the project the National Fire Industry Association (NFIA) and the Fire Protection Association of Australia (FPAA) have not agreed on some aspects of the redeveloped qualifications, particularly regarding packaging rules of the qualifications and the content required in some fire units. On January 2020, the FPAA has made submission to the Department of Education, Skills, Employment raising concerns as to how the updated fire protection components do not meet the needs of the sector. These were considered by the TAG who did not share the FPAA's views.	Both industry associations were part of the TAG and were provided multiple opportunities to canvass feedback and participate in the development of the fire protection components. The fire components were reviewed by two independent quality assurance members are were satisfied the requirements set out in the training package policies.

Key outcomes

The outcomes of the project align with the AISC requirements articulated in its activity order and supports the implementation of COAGs reforms to training package components.

Qualifications
• 13 qualifications were reviewed by industry to determine if they were fit for purpose. • Eight qualifications were updated to the 2012 Standards for Training Packages. • Five qualifications are being proposed for deletion due to low enrolments and lack of industry demand.
Unit of competency / assessment requirements
• A set of new units of competency were developed to capture emerging industry needs and over 150 units of competency and assessment requirements were updated to 2012 Standards for Training Packages. This involved: a) unit title modifications to ensure the intended outcome is clearly set out b) removing obsolete and superfluous information to support clarity relating to the required industry standards for training and assessment c) using clear and plain English in developing the units of competency and assessment requirements to minimise ambiguity and support consistency d) updating the content against relevant regulations, legislation, the National Construction Code (Plumbing), other codes of practice and WHS requirements.

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A. Administrative details of Case for Endorsement

Name of allocated IRC

The submission of this Case for Endorsement is made by Construction, Plumbing and Services Industry Reference Committee (IRC).

Name of the SSO

Artibus Innovation is the Skills Service Organisation (SSO) supporting this submission.

Training package components submitted for approval

This Case for Endorsement puts forward eight qualifications and 163 units of competency.

Proposed updated qualifications:

1. CPC20720 Certificate II in Drainage
2. CPC32420 Certificate III in Plumbing
3. CPC32620 Certificate III in Roof Plumbing
4. CPC32720 Certificate III in Gas Fitting
5. CPC32820 Certificate III in Fire Protection
6. CPC40920 Certificate IV in Plumbing and Services
7. CPC50520 Diploma of Fire Systems Design
8. CPC50620 Diploma of Hydraulic Services Design

Proposed deletion of qualifications:

1. CPC20812 Certificate II in Metal Roofing and Cladding
2. CPC20912 Certificate II in Urban Irrigation
3. CPC32513 Certificate III in Plumbing (Mechanical Services)
4. CPC50412 Diploma of Plumbing and Services
5. CPC80115 Graduate Certificate in Fire Systems Design Management

Proposed units of competency

- Six (6) new units of competency.
- One hundred and fifty-five (155) revised units of competency.
- Deletion of five (5) units of competency.

Further mapping information on the qualifications and units of competency can be located in **Section H: Proposed Training Package components**.

Case for Change details

The Australian Industry and Skills Committee (AISC) approved the activity to update the CPC Construction, Plumbing and Services Training Package components to the Standards for Training Packages 2012.

Activity order number:	TPD/2016-17/005
Activity start date:	March 2017
Original finish date:	31 March 2018
Activity finish date:	15 May 2020

Requirement set by the Australian Industry and Skills Committee (AISC) in relation to the training package activity

The AISC's requirements were to develop the components against the:

1. Standards for Training Package 2012
2. scoping study undertaken by the Construction and Property Services Industry Skills Council (CPISC) for the *CPC08 Plumbing and Services Qualifications, and the CPP07 Fire Protection Inspection and Testing Qualifications*
3. recommendations from industry consultations following the scoping study in relation to the revision of qualifications and units of competency and proposed deletions of qualifications.

Details on the review, development and consultation activity on the components are outlined in Section B.

B. Description of work and request for approval

This section describes the process on how the components were developed in consultation with industry and the decision being sought from the AISC.

Description of work undertaken and why

Under work activity order Artibus/TPD/2016-17/007, the AISC, commissioned the transition of eight qualifications to the 2012 Standards for Training Packages in the context of: the scoping study by the CPSISC the CPC08 Plumbing and Services Qualifications, and the CPP07 Fire Protection Inspection and Testing Qualifications.

Accordingly, the plumbing and fire services project commenced on April 2017 by analysing the recommendations nominated in the *Final Report*: S*coping Study for the CPC08 Plumbing and Services Qualifications and the CPP Fire Protection Inspection and Testing Qualifications* (Final Report July 2015) and published by CPSISC.

The intent of the Final Report was 'to produce a detailed and highly consulted scoping study that can inform the future technical writing of the suite of qualifications irrespective of the body that may oversee that work in the future' (p. 3).

"This report was 'agreed to' and 'owned' by the key stakeholders in the plumbing and services and fire protection and testing sectors and is a powerful document that should be referenced in, and drive, any future redesign and redevelopment work'" (p. 3).

The report notes that there was a clear understanding of the industry preference for minimal change, in particular to qualifications with very high enrolments, especially the Certificate III in Plumbing. However, as a result of findings in relation to enrolments and requirements for compliance with Standards for Training Packages, in particular Standard 8, some significant changes were recommended.

Standard 8 requires in part that qualifications are specific and meet the needs of a clearly identified industry and occupational audience. Critical to this issue is licensing – plumbing work is licensed differently in every state and territory.

The recommended changes included in the scoping report are noted below. Each recommendation was (re)considered by the Technical Advisory Group (TAG) at its first meeting and informed much of the early consultation activity. These considerations shaped the initial design of the Case for Endorsement.

CPC20712 Certificate II in Drainage

This qualification is used for licensed drainers who work under the direction of drainage contractors; both this qualification and the full Certificate III in Plumbing, with the drainage stream completed, are used for the same licences in some states and territories.

The Certificate II qualification is fully nested in the Certificate III in Plumbing and Services qualification.

In 2015 the total number of nationwide annual enrolments used for review, ranged from 71 to 139 (2009 – 2013) and it is not used in Victoria or the Northern Territory.

The CPSISC report indicated no survey responses in relation to this qualification; and consultations with stakeholders produced different responses:

- retain the Certificate II and review including removal of 'below ground' and/or planning work requirements; OR
- delete it and upgrade to a Certificate III.

The TAG's response to the scoping recommendations

Further consultation was required to determine whether:

1. the qualification should be upgraded and replaced with a trade-level qualification
2. industry would support a standalone Certificate III in Drainage.

CPC20812 Certificate II in Metal Roofing and Cladding

The CPSISC report noted that this qualification is not used for licensing.

2017 data and research identifies delivery of this qualification as a 10-week course in South Australia, funded through the Government of South Australia's WorkReady initiative, with the qualification being described as a 'Certificate II Program in Pre-Vocational Plumbing', and a small number of enrolments in Queensland (23).

As noted in the CPSISC analysis, a careful elective unit selection could enable only one additional unit to be required for the Certificate III in Roof Plumbing, an apprenticeship outcome over three years.

There were no survey responses regarding this qualification, and stakeholders consulted recommended deleting the qualification.

Feedback received in May 2017 from TAFE SA citing high apprenticeship outcomes from the program, strongly supports the retention of the Certificate II in Metal Roofing and Cladding or development of an alternative Certificate II qualification.

The TAG's response to the scoping recommendations

Given that this qualification has no occupational differentiation from the Certificate III in Roof Plumbing, the qualification is to be deleted.

CPC20912 Certificate II in Urban Irrigation

CPSISC's review identified this qualification as only used in NSW and with very low enrolments. This continues to be the case with 18 enrolments in 2014, 0 in 2015 and two in NSW in 2016.

The TAG's response to the scoping recommendations

It was considered that urban irrigation does not form an integral part of plumbing work, and therefore, this qualification is to be deleted.

It was considered the Certificate III in Plumbing and Services covers recycled/grey water systems and the regulation of urban irrigation in Victoria.

CPC32513 Certificate III in Plumbing (Mechanical Services)

The CPSISC report noted very low enrolment numbers in this qualification (Queensland and Tasmania only) with total enrolments of 72 for both 2012 and 2013. Post the initial review and recommendations, enrolments have continued to be limited, with 35 in Queensland in 2014, and 0 in 2015 and 2016.

The qualification content is identical in terms of units included in the Certificate III in Plumbing and Services, but the structure differs as it has water and mechanical as mandatory streams, rather than water and sanitary.

Stakeholders consulted recommended that there is no need to retain the qualification, as the Certificate III in Plumbing and Services offers the same outcome.

The TAG's response to the scoping recommendations

Delete the CPC32513 Certificate III in Plumbing (Mechanical Services).

CPC32612 Certificate III in Roof Plumbing

Data in the initial 2015 report indicated enrolments between 300 and 700 from 2009 – 2013 spread across all states and territories except Victoria. Enrolments of 683 (in 2014), 872 (in 2015) and 985 (in 2016) have shown moderate and consistent increases.

The decision of the governance groups was to **retain this qualification** for additional stakeholder feedback, including redesigning the units to AQF 3 level and adding additional units and/or 'content' to units as identified by technical expertise.

At the time of the scoping study in 2015, this qualification was used for licensing.

The TAG's response to the scoping recommendations

It was proposed to retain and update the qualification, with minor changes to the structure of the qualification.

CPC32713 Certificate III in Gas Fitting

Enrolments of 117 in 2012 and 152 in 2013 declined significantly with only 41 enrolments in 2014, although show a revised increase to 112 in 2015 and 222 in 2016 with increases predominately in Queensland and Western Australia.

The CPSISC reported the stakeholder decision to develop the following proposal for wider stakeholder feedback:

- retain this qualification
- redesign the units to AQF 3 level
- add new units – to be identified with further technical advice
- a peak body identified the need to reinstate liquefied petroleum gas (LPG) units based on NSW accredited course.

The TAG's response to the scoping recommendations

It was proposed to retain and update the qualification, with minor changes to the structure of the qualification.

CPC32413 Certificate III in Plumbing and Services

This qualification is used for multiple licenses and has very large enrolments across the board 12,000 (2012) and 8,500 (2013).

Whilst a proposal was suggested which included:

- incorporating all the changes in the 'decision' (below)
- flexibility to select ALL streams vs specified mandatory streams (with a minimum of 4)
- combining sanitary and drainage streams reducing the listed electives
- combining units (as listed).

The 'decision' of the National Plumbing Services and Contracting Industry Reference Group (NPSCIRG) based on the consultation and feedback was to develop a more 'minimal' impact proposal including:

- embed common units
- rewrite and rebadge 2000 units as 3000 (where possible)
- add LPG units and other recommended competencies
- remove suggested 'unwanted' competencies – but allow for 'drawing in' as required
- combine all stream cores except mechanical services – create an elective group for mechanical services
- list all other electives as general electives.

The TAG's response to the scoping recommendations

It was proposed to update the qualification and focus on including units that lived as stream core units in the actual core of the qualification.

CPC32813 Certificate III in Fire Protection

2017 data shows enrolment figures to be significantly increasing over the 2014 – 2016 period with:

- 56 in QLD (2014)
- 449 (2015) - with majority of enrolments in NSW, VIC, QLD and a small number in SA (28). No enrolments recorded for WA, TAS, NT or ACT.
- 677 (2016).

- The decision of the National Fire Industry Reference Group (NFIRG) as to proceed with a proposal to:

- reduce the number of 2000 suite units by embedding content
- rewrite majority of remaining 2000 series units to AQF 3 and recode in 3000 series
- add identified content that sits at AQF 3
- allow some limited capacity for drawing in units from other qualifications in an increased elective allocation, once core rationalised (see dot point 1)
- proposed higher level additions, such as some of the Building Information Modelling (BIM) competencies, design and surveying, to be considered as part of the Certificate IV or Diploma qualifications.

The TAG's response to the scoping recommendations

It was proposed to retain and update the qualification, with minor changes to core units.

CPC40912 Certificate IV in Plumbing and Services

The 2015 data showed total annual national enrolments to be increasing 3153 (2012) and 4670 (2013) with minimal delivery of the qualification in WA and NT, and it is not used in the ACT.

The scoping study indicated that this qualification is used for licensing.

In some states/territories, groups of units are used for example: a Drainer who has either the Certificate II in Drainage or the Certificate III in Plumbing and Services with the Drainage Stream must complete six specified units from this qualification to be licensed as a Drainage Contractor:

- CPCPCM4001A Carry out work-based risk control process
- CPCPCM4002A Estimate and cost work
- CPCPDR4001A Plan, size and layout sanitary drainage systems
- CPCPDR4002A Plan, size and layout stormwater drainage systems
- CPCPDR4003A Plan, size and layout domestic treatment plant disposal systems
- BSBSMB401A Establish legal and risk management requirements of small business.

The Plumbing and Services (Operations) Stream, with two electives from the Fire Stream, is used for Fire Protection licensing in Victoria.

The issues identified in the 2015 project included:

- There are five streams resulting in different separate occupational outcomes from this qualification with only four core units (generic) in common. The occupations outcomes for the five streams include:
    - experienced fire operators with responsibility for project design and supervision (Fire Services Stream)
    - experienced plumbing service operators with responsibility for project design and supervision (Air Conditioning and Mechanical Services Stream)
    - plumbers who manage a plumbing business (Plumbing and Services – Management Stream)
    - specialist plumbing services tradespersons and operators seeking to deepen their technical skills (Plumbing and Services Operations Stream)
    - specialist hydraulic consultants (Hydraulic Services Design Stream).
- The packaging rules are very complex, the elective lists are very extensive and the number of BSB Business Services units is high – for example, in Fire Services a person could complete nine BSB units and only six CPC units.

In 2015, the 'decision' by the governance groups was to split this qualification into separate Certificate IV qualifications; with a minimum of two qualifications:

- Certificate IV in Plumbing and Services Operations
- Certificate IV in Hydraulic Services Design
- Requirements for other Certificate IV qualifications to be advised
- The NFIRG decided to retain a Certificate IV qualification in Fire Protection – possibly with 'streams' with units in the Fire Stream of this qualification to be reviewed, some or all may be required; new units may be required to cover certification.

The TAG's response to the scoping recommendations

The proposal to split this qualification into three separate qualifications is supported.

CPC50509 Diploma of Plumbing and Services

The CPCISC report indicated no enrolments in this qualification. In October 2017, two Registered Training Organisations (RTOs) were registered to deliver this qualification.

Three responses to the CPCISC survey were ambivalent, including:

- 'bit of this and a bit of that'
- seemed like a good idea at the time, and maybe some time in the future but not used at present
- 'reluctant to give anything away'.

The TAG's response to the scoping recommendations

It was proposed not to re-develop the qualification.

CPC50612 Diploma of Hydraulic Services Design

Enrolments are in NSW, Queensland and Victoria only, although have increased significantly since the CPCISC report of 9 (2010), 54 (2011), 64 (2012) and 9 (2013) when no enrolments were recorded in Victoria. 2017 data shows enrolment of 89 (in 2014), 123 (in 2015) and 112 (in 2016).

The proposed decision of the CPCISC report was to redesign the qualification in respect of the feedback received, including removing the prerequisite of the Certificate in Hydraulic Systems Design, OR deleting the eight units of the Certificate IV from the core of the Diploma.

The TAG's response to the scoping recommendations

It was proposed to retain and update qualification.

CPC50509 Diploma of Fire System Design

Since the CPCISC report citing no enrolments in this qualification, VET activity data indicates 39 enrolments in NSW in 2014, 75 in 2015, 74 in 2016 with an additional 4 in Victoria in 2016.

Suggestions received included:

- The limitations of the Australian Standards prevent the use of innovative materials which can be employed in building systems.
- The Fire System Design Diploma is a good reflection of the role in industry.
- It meets an area of huge need in the industry.
- The annual certification stream should be more aligned to certification, as there is no job role as an annual certifier.
- Add fire detection, smoke control systems and occupant warning systems and sound and intercom systems for emergency purposes. There should also be a new stream for mechanical smoke control system design CPCPFS5011A Design fire sprinkler systems [Note already includes CPCSFS5006A Create detailed designs for fire sprinkler systems].
- CPCPFS4024A Design residential and domestic fire sprinkler systems [see note above].
- Split CPCSFS5008A Create detailed designs for fire detection and warning systems into four units: Create detailed designs for fire detection systems; Create detailed designs for emergency warning systems; Create detailed designs for smoke detection of mechanical smoke control systems; Create detailed designs for control and monitoring of mechanical smoke control systems.

Qualification code	**Qualification title**	**Proposed action for discussion and TAG decision**
CPC20712	Certificate II in Drainage	No definitive proposal • Retain and review • Delete (and develop new qualification at CIII)
CPC20912	Certificate II in Urban Irrigation	Delete
CPC20812	Certificate II in Metal Roofing and Cladding	Delete
CPC32612	Certificate III in Roof Plumbing	Review, update and transition
CPC32413	Certificate III in Plumbing	Redesign to include: ocommon 'core' (larger number of core units; recode as general plumbing) + elective 'groups'
CPC32513	Certificate III in Plumbing (Mechanical Services)	Delete
CPC 32813	Certificate III in Fire Protection	Review, update and transition
CPC32713	Certificate III in Gas Fitting	Review and transition
CPC40912	Certificate IV in Plumbing and Services	Develop as three separate qualifications: • Plumbing Operations • Fire Protection • Hydraulic Services Design
CPC50412	Diploma of Plumbing and Services	No definitive proposal
CPC50509	Diploma of Fire Systems Design	Separation into 'at least' three qualifications o Water-based systems o Detection and warning systems

Qualification code	Qualification title	Proposed action for discussion and TAG decision
		○ Certification/compliance audit
CPC50612	Diploma of Hydraulic Services Design	Review, update and transition

Consultation and development activities

1. Project page

Upon commencement of this activity, a project page was developed on the Artibus Innovation website. The project page was kept updated throughout the duration of the project. It provided industry stakeholders with information on national forums, workshops, the status of the project and opportunities to provide input on the components.

Draft materials were also made available to industry on the project page throughout various stages of the project.

https://www.artibus.com.au/project/?project_id=18

The project page received 5160-page views.

2. Establishment of a Technical Advisory Group (TAG)

Following the unpacking of the Final Report, under guidance of the IRC a Technical Advisory Group (TAG) was established to provide key input on the development of the qualifications and units of competency and support the consultation process.

The Construction, Plumbing and Services IRC was appointed by the AISC to represent the industry and is made up of people with experience, skills and knowledge of the construction industry. The role of the IRC is to ensure that the CPC Construction, Plumbing and Services Training Package meets the needs of employers. They are the formal point through which industry requirements for skills are considered and defined in the CPC Construction, Plumbing and Services Training Package. Membership of the IRC and consultation methodology is available at Appendix A.

The TAG membership included representatives from employers, employees, industry associations, training providers, businesses and regulators.

The members of TAG were:

TAG member	Organisation
Ken Gardner (Chair)	Master Plumbers Australia and IRC member
Glen Menzies	Plumbing and Pipe Trades Employees Union
Greg Smith	National Fire Industry Association

Mark Robertson	Robertson Projects Pty Ltd
Paul Naylor	Master Plumbers NSW
Rob Gilman	National Plumbing Services Training Advisory Group
Jen Mason	Victorian Building Authority
Anthony Smith	DMIRS WA
Brendon Gould	Master Plumbers RTO
Shayne La Combre	Plumbing Industry Climate Action Centre
Tim Peach	Institute of Plumbing Australia
Ben Hawkins	AMCA
Paul Beaumont	Gas Technical Regulators Committee (GTRC)
Chris Wyborn	Fire Protection Association of Australia

The TAG met either in person or by video conference to analyse the existing Training Package components and provide industry expertise on the packaging of the qualifications and on unit of competency content.

TAG meetings were held on the following dates:

Meeting No.	**Date**
1	11 October 2017
2	5 December 2017
3	18 January 2018
4	13 April 2018
5	18 June 2018
6	18 September 2018
7	18 December 2018
8	13 February 2019
9	5 April 2019
10	25 June 2019
11	14 August 2019
12	25 September 2019
13	15 October 2019
14	15 November 2019
15	13 December 2019
16	13 February 2020

Working groups

Working groups were established to gather advice on specific qualification and units of competency.

Fire Services Working Group
Date: 12th October 2017
Location: PICAC (306 Albert Street, Brunswick, VIC 3056)

Members	Organisation
Carmel Coate	National Fire Industry Association
Chris Wyborn	Fire Protection Association Australia
Mark Robertson	TAFE QLD
Rob Gilman	National Plumbing Services Training Advisory Group
Paul Naylor	Master Plumbers NSW
Ben Hawkins	AMCA
Jennifer Mason	Victorian Building Authority
Gary Bath	Master Plumbers VIC
Andy Wallace	PPTEU ASN
Lucas Blyth	Fire Industry Training Co
Tim Peach	Institute of Plumbing Australia

Certificate IV in Plumbing Working Group
Date: 28th August 2019
Location: Victorian Building Authority (733 Bourke Street, Docklands VIC 3001)

Members	Organisation
Robert Gilman	National Plumbing Services Training Advisory Group
Jennifer Mason	Victorian Building Authority
Gary Cook	Master Plumbers Australia

Certificate III in Fire Services Working Group
Date: 29th January 2019
Location: Online

Members	Organisation
Jennifer Mason	Victorian Building Authority
Greg Smith	National Fire Industry Association
Lucas Blyth	Fire Industry Training Co.
Shae Mete	Fire Protection Industry Association
Stephen Movely	The Institute of Plumbing Australia
Paddy McCrudden	PPTEU ASN

Certificate II, III and IV Qualifications Working Group
Date: 30th January 2019
Location: Online

Members	Organisation
Ken Gardner	Master Plumbers Australia
Mark Robertson	TAFE QLD
Rob Gilman	National Plumbing Services Training Advisory Group
Paul Naylor	MPA NSW
Ben Hawkins	AMCA
Jennifer Mason	Victorian Building Authority
Gary Bath	Master Plumbers

Certificate III in Roof Plumbing Working Group
Date: 31st January 2019
Location: Online

Members	Organisation
Glenn Menzies	PPTEU
Mark Robertson	TAFE QLD
Brad Ryan	Bluescope Steel
Ernie Kretschmer	Master Plumbers QLD
Neil Creek	Australian Steel Institute
Gary Bath	Master Plumbers VIC

Certificate III in Gas Fitting Working Group
Date: 4th February 2019
Location: Online

Members	Organisation
Shayne La Combre	The Plumbing Industry Climate Action Centre
Enzo Alfonsetti	Energy Safe VIC
Paul Beaumont	DNRME QLD Government

Diploma of Hydraulic Services Working Group
Date: 8th February 2019
Location: Online

Members	Organisation
Tim Peach	TJ Peach & Associates Hydraulic Services and Fire
Jennifer Mason	Victorian Building Authority
Robert Gilman	TAFE NSW

3. Industry forums

To support industry stakeholder participation and gather face-to-face feedback forums were held in all capital cities.

Date	Jurisdiction	No. of participants
Monday 26 Feb 18	QLD	11
Monday 26 Feb 18	NSW	3
Tuesday 27 Feb 2018 (Webinar)		5
Wednesday 28 Feb 18	QLD	8
Thursday 1 March 18 (Webinar)		3
Monday 5 March 18	NSW	14
Tuesday 6 March 18	VIC	31
Wednesday 7 March 18	ACT	16
Thursday 8 March 18 Webinar		7
Wednesday 14 March 18	WA	8
Thursday 15 March 18 Perth	WA	11
Tuesday 20 March 2018	SA	19
Friday 23 March 2018	SA	13
Monday 26 March 2018 (Webinar)		8
Monday 19 March 2018	TAS	6

See Appendix B: Industry forums 2018 for details relating to feedback provided by industry.

4. Industry surveys

Industry surveys were used to provide industry stakeholders the opportunity to comment on the draft Training Package components at different stages of the project.

Consultation round 1

This round of consultation opened from 1 March to 16 March 2018. The aim of this round of consultation was to gather input on the proposed structure of the qualifications. The units were still being updated and were not put forward for comment in this round.

190 industry stakeholders participated through his channel, with the feedback focussing on the Certificate III in Plumbing.

Consultation round 2

This round of consultation opened from 14 June to 1 July 2018. The qualifications and the associated units of competency were made available for comment. 109 industry stakeholders participated in this consultation period. Feedback was received from a range of stakeholders, with the input mainly focussing on the Certificate III in Plumbing.

Validation round 1

This validation round opened from 29 October to 19 November 2018. The qualifications and units of competency were updated against industry feedback received from the previous round. 272 industry stakeholders participated in the validation.

Validation round 2

This round of validation opened 1 – 31 July 2019. 52 industry stakeholders participated in the validation. Feedback received primarily related to the structure and packaging of the Certificate III in Plumbing.

Final validation – November 2019

Another round of validation was required, given that all the AQF level 1 to 3 qualifications in the project were updated to reflect the IRC's decision to include CPCCWHS1001 Prepare to work in the construction industry.

National CPC forums were held in November as well as a webinar.

5. Newsletter (email)

Newsletters were distributed to a network of 3000+ industry stakeholders to inform them of the current status of the project and its progression. The newsletters provided stakeholders information on the draft materials and opportunities for engagement.

6. State/Territory Training Authorities (STA) participation

STAs were kept abreast of the project and its development. Feedback from STAs on the components were received on the Training Package components though different stages of the project. Teleconferences were also held to discuss feedback and project progress with several STAs.

Dissenting views

Fire protection

Throughout the project, there were differing opinions among two organisations from the fire protection sector. The member organisation were the Fire Protection Association Australia (FPAA) and the National Fire Industry Association (NFIA). Both member organisations were represented on the TAG and were involved in all working groups and consultation processes as the respective fire components were being developed.

The issues ranged from industrial coverage on fire protection scope of work, packaging rules of the qualification, unit content, to licensing and regulation.

These issues also featured in the CPP Fire Protection review, which included the following qualifications:

- CPP20511 Certificate II in Fire Protection Inspection and Testing
- CPP30811 Certificate III in Fire Protection Inspection and Testing.

A resolution has not been achieved in the CPP review of the Fire Protection Inspection and Testing qualification. The project is on hold at the moment.

A resolution has not been achieved in the CPC review of the fire protection qualifications and units of competency. The FPAA has submitted a formal submission not supporting proposed fire qualifications and units of competency in this review. A response to the FPAA's submission can be located in **Appendix G: TAG response to the Fire Protection Association Australia**.

In regard to this Case for Endorsement, this has led to counter complaints being sent to the AISC from the Fire Protection Association of Australia (FPAA) in relation to the inclusion of contested training content from the CPP Property Services Training Package and exclusion of recommended content, referencing sections of the National Construction Code (NCC).

The aim of the project has been to ensure the development of the qualifications and units of competency meet industry training standards. The majority of the TAG members feel that these objectives has been achieved.

Summary of feedback/issues

Certificate III in Plumbing – qualification structure

Of the qualifications under review, the Certificate III in Plumbing has the highest enrolment and completion numbers. It is the qualification that has received most industry feedback throughout the lifecycle of the project.

Certificate III in Plumbing – number of units require to achieve the qualification

Key issues raised during the developing of the Training Package components primarily focused on the makeup of the new Certificate III in Plumbing. The issues include, but are not limited to:

- high number of units of competency in the core of the qualification
- including gas-specific units in the core
- packaging arrangements (i.e. how many core units and electives units are required)
- the composition of the elective streams.

Fire protection qualifications

Issues relating to the fire qualifications and units of competency were on the:

- suitability of unit content
- packaging arrangements.

Feedback relating to current skills and knowledge gaps, have been addressed by either developing new units or by ensuring existing units covers the gaps.

A summary of the major issues which were considered, and the key recommendations are presented below. This feedback was received in all the rounds of consultation during the development of the qualification.

Issue	Description	Treatment of feedback and recommendation	Rationale
1. No. of units packaged in the core Certificate III in Plumbing – high number of competencies packaged in the qualification	The proposed Certificate III in Plumbing saw an increase on the numbers of competencies required to achieve the qualification. State Training Authorities (STAs), training providers and training funds raised concerns regarding the increase of units required to achieve the qualifications. The increase of units has an impact on: **funding** – increase relating payable nominal hours/qualifications not financially viable to deliver **apprenticeship models** – employers in Queensland, for example, may not work with gas as part of their plumbing work and may find it difficult to offer this scope of work for apprentices which could impact on their willingness to employ apprentices	Although funding and implementation were considered throughout the project, they are outside the scope of IRC and SSO. The TAG has considered the feedback relating to the structure of core of the qualifications, particularly, from the last round of consultation and amended the packaging rules, where an amendment is not detrimental to regulatory regimes. **Impact on funding:** units of competency are not 'equal' in terms of scope, breadth, depth and nominal hours. The total nominal hours for the current qualification would be fairly similar to the previous qualification, regardless of total unit numbers. **Impact on apprenticeships:** training providers can delivery gas-related training and	*Existing plumbing qualification model – multiple qualifications* Plumbing work is generally divided into six main licensing classes: 1. drainage work 2. gas fitting work 3. mechanical services work 4. roofing (stormwater) work 5. sanitary work 6. water supply work. At present, there are seven existing plumbing related qualifications that capture the plumbing activity that aim to represent the six main classes of plumbing listed above. These qualifications have a range of common units of competency that sit across all seven qualifications, producing a high degree of overlap amongst them. This fragmented approach towards licensing and training makes it challenging for candidates to undertake a robust qualification that would enable them to obtain a range of licensing outcomes. *Proposed approach* The proposed approach undertaken in the development of the plumbing qualifications; three qualifications are

	Implementation - of qualification.	assessment in a simulated environment. **Impact on implementation:** the IRC has agreed to support a 2-year extension to the current standard teach out period provided by ASQA to support implementation.	proposed for deletion due largely in part because they duplicate vocational outcomes. The propose deleted qualification as listed as follows: 1. CPC20812 Certificate II in Metal Roofing and Cladding 2. CPC20912 Certificate II in Urban Irrigation 3. CPC32513 Certificate III in Plumbing (Mechanical Services) The updated plumbing qualifications listed below, ensure a direct alignment with licensing outcomes and still support learning progression into higher level AQF qualifications: 1. CPC20720 Certificate II in Drainage 2. CPC32420 Certificate III in Plumbing 3. CPC32620 Certificate III in Roof Plumbing 4. CPC32720 Certificate III in Gas Fitting The updated **Certificate II in Drainage** has been developed to ensure alignment with the draining work licensing class. The updated **Certificate III in Plumbing** qualification has been developed to enable candidates to complete training for the four 'general' plumbing classes recognised in all jurisdictions across Australia: water, sanitary, drainage and gas work. The core units reflect the core skills and knowledge required for the four 'general' classes of water, sanitary, drainage and gas (and are representative of the core units

			in these individual streams). In addition, two additional core units from the previous roofing stream were included. In selecting core units, the TAG took on board key industry and stakeholder feedback as well as work health and safety (WHS) considerations. The aim was to create a qualification that ensured the minimum 'baseline' of plumbing knowledge and skills is quite high. Industry and key stakeholder feedback largely agreed with the final selection of core units. Candidates will also have the opportunity to complete additional units to obtain roofing (stormwater work) and mechanical services work. Therefore, upon completion of the qualification participants will exit with one of the following occupational streams: 1. General Plumbing 2. General Plumbing and Roofing 3. General Plumbing and Mechanical Services 4. General Plumbing, Roofing and Mechanical Services. The TAG had suggested that some units that cover underpinning knowledge could be deleted and the content embedded in technical core units. Key industry and stakeholder feedback largely rejected these proposals. Other considerations were the 'portability' of skills i.e. a plumber doing mostly domestic work in 2020, may expand into commercial work by 2025 or vice versa, plumbers who do mostly regional plumbing work may be able to move

			easily into metropolitan-based plumbing work and vice versa, and plumbers who may work in more than one jurisdiction i.e. plumbers who work in Echuca are likely to be registered in both NSW and Victoria, and plumbers that may move from one jurisdiction to another. As such, some units that were core units in the current qualifications were moved to elective units and vice versa. The updated **Certificate III in Roof Plumbing** has been developed to support licensing outcomes. A range of roofing units are also packaged in the Certificate III in Plumbing. The updated **Certificate III in Gas Fitting** has been developed to support licensing outcomes. A range of gas units are also packaged in the Certificate III in Plumbing.
2. **Gas units packaged in the core in the Certificate III in Plumbing**	The proposed Certificate III in Plumbing includes nine (9) gas units in the core. State Training Authorities (STAs), regulators and training funds raised this concern throughout the consultation process. Packaging gas units in the core of the qualification poses challenges to employers and their ability to support apprentices achieving the units.	Although implementation was considered throughout the project, they are outside the scope of IRC and SSO. There is a range of gas units that remain in the core of the qualifications to ensure all plumbers have the necessary skills and knowledge when it comes to working with gas. **Impact on apprenticeships:** training providers can delivery gas-related training and	The TAG and industry representatives have confirmed that the national qualification should include gas in the core of the qualification given that this work is undertaken in most jurisdictions, albeit recognising that this does not suit every jurisdiction (QLD and NT). This approach supports both occupational and licensing mobility across states and territories.

		assessment in a simulated environment.	
3. **Fire protection training package components**	Robust discussions were held between the National Fire Industry Association (NFIA) and the Fire Protection Association of Australia (NFAA) regarding packaging rules of the qualifications and the content required in the fire units. The FPAA has made submission January 2020 raising concerns as to how the updated fire protection components do not meet the needs of the sector.	Both industry associations were part of the TAG and were provided opportunities to canvass feedback and participate in the development of the fire protection components. The fire components were reviewed by two independent quality assurance members are were satisfied the requirements set out in the training package policies.	After numerous efforts to reach agreement, this issue remains unresolved.
4. Merger of units of competency	Industry and stakeholder feedback did not agree with all the merged units. The TAG sought feedback on a number of alternative groupings. Ultimately, industry agreed to only a small number of units being merged. Some stakeholders felt that they were important to be delivered separately, whilst others grouped some units differently.	The units of competency have been heavily reworked by industry experts in working groups.	The TAG identified that a number of units could be merged based on: 1. smaller units that could be grouped together to form a larger more cohesive unit 2. overlapping learning content 3. RTOs grouping certain units for delivery and assessment. A range of units of competency were merged to support alignment with COAGs reforms to training packages.

	Industry feedback was split in relation to the merging of some units. The TAG also took into account that the delivery and assessment outcomes did not change whether the units were merged or not. Individual RTOs could still elect to deliver and assess these units separately or grouped together.		
5. Misalignment with regulatory/licensing requirements	A key challenge in developing the qualifications and the bank of units of competency was to ensure they supported regulatory/licensing requirements.	Where appropriate, efforts were made both at the qualification and unit levels to develop training package components to align with regulatory/licensing requirement across the nation.	The updated plumbing qualifications listed below, support alignment with licensing outcomes and still learning progression into higher level AQF qualifications: 1. CPC20720 Certificate II in Drainage 2. CPC32420 Certificate III in Plumbing 3. CPC32620 Certificate III in Roof Plumbing 4. CPC32720 Certificate III in Gas Fitting. Please note: The scope of work that a plumbing and/or fire protection practitioner undertakes under a trade is dictated by the relevant regulatory body in each jurisdiction under the relative legislative framework for that jurisdiction – not a qualification. The introduction of an updated and/or new qualification does not normally remove the rights for existing licenced or registered practitioners. The relevant regulatory body is responsible to ensure licenced/registered plumbing practitioners upgrade to the

			new qualification (and this would normally coincide with a set timeframe).
6. Emerging trends and skills gaps	The VBA put forward a submission to the TAG September 2019 highlighted the need to update, where appropriate, qualifications and units of competency to include training and knowledge relating performance solutions.	New units have been developed to captures these gaps, or in some case, content has been included in the knowledge evidence of units.	The development of new units was key to ensure the skills and knowledge gaps are covered in the industry. This issue has been resolved.
7. Gas installation in caravans and marine craft	The feedback received from the QLD STA and the Construction Skills Queensland, for example, did not support the inclusion of this units in the core.	The units relating to this work included in the elective streams.	The units are now electives in the Certificate III in Plumbing. Issue has been resolved.
8. Equivalency	During the National Forums in 2019 feedback was received on the equivalency of these qualifications. The TAG reconsidered the equivalency of the qualifications in its meeting held 13 December 2019. Stakeholders from the QLD forum recommended that the Certificate III and IV in Plumbing remain equivalent to support training providers as they update their training and assessment materials and resources.	This feedback was considered by the TAG in December 2019 and given the structural changes to the Certificate III in Plumbing and Certificate IV in Plumbing Services, these qualifications have been deemed non-equivalent.	Whilst acknowledging the potential administrative burden this decision would cause training providers, it was determined to keep the equivalency status of the qualifications as non-equivalent. To support training providers, all the units remain equivalent (excluding units that have been merged).

Proposed key changes

The following table outlines the proposed key changes which are recommended following several rounds of consultation which ensured broad industry engagement and opportunities to comment on the draft qualifications and units of competency.

Stakeholder feedback has been key on ensuring the draft material reflect current occupational outcomes and industry best practice.

Stakeholders from all jurisdictions have provided input in the project.

The TAG reviewed industry feedback at every meeting and amended the Training Package components to reflect industry feedback where appropriate.

A summary of the key proposed changes is presented below:

Key changes	Description
KC1	CPC20712 Certificate II in Drainage has been updated. It is designed to provide an entry pathway into the industry. The qualification remains equivalent.
KC2	CPC20812 Certificate II in Metal Roofing and Cladding is being proposed for deletion because it duplicates an occupational outcome and it has low levels of enrolment.
KC 3	CPC20912 Certificate II in Urban Irrigation is being proposed for deletion because it duplicates an occupational outcome and it has low levels of enrolment.
KC 4	CPC32413 Certificate III in Plumbing has been updated to support licensing across jurisdictions. The structure of the qualification has been designed to meet the various regulatory frameworks in different jurisdictions, therefore there are four options of achieving the qualification which address jurisdiction needs. The qualification will be non-equivalent.
KC 5	CPC32513 Certificate III in Plumbing (Mechanical Services) is being proposed for deletion because it duplicates an occupational outcome and it has low levels of enrolment.
KC 6	CPC32612 Certificate III in Roof Plumbing has been updated to support existing traineeships and licensing requirement in some jurisdictions. The qualification remains equivalent.
KC 7	CPC32713 Certificate III in Gas Fitting has been updated to support existing traineeships and licensing requirement in some jurisdictions. The qualification remains equivalent.
KC 8	CPC32813 Certificate III in Fire Protection has been updated to support apprenticeships and licensing requirements. The qualification remains equivalent.
KC 9	CPC40912 Certificate IV in Plumbing and Services has been updated to support learner progression and current occupational outcomes. The CPC40920 Certificate IV in Plumbing and Services has now the following two streams: • Hydraulic services design • Operations. The CPC40912 Certificate IV in Plumbing and Services has five streams: • Fire services stream • Air conditioning and mechanical services stream • Plumbing and services – Management stream • Plumbing and services – Operations stream

	• Hydraulic services design stream. Three streams were removed as a result of the update required to ensure the qualification meet current industry needs. The qualification will be non-equivalent.
KC 10	CPC50412 Diploma of Plumbing and Services is being proposed for deletion. The qualification offers no real vocational outcome and is not being delivered.
KC 11	CPC50509 Diploma of Fire System Design has been updated to the *Standards for Training Packages* 2012. This qualification provides elective grouping of units to provide training providers clarity on the outcomes industry expects.
KC 12	CPC50612 Diploma of Hydraulic Services Design has been updated to the *Standards for Training Packages* 2012. This qualification provides elective grouping of units to provide training providers clarity on the outcomes industry expects.
KC 13	CPC80115 Graduate Certificate in Fire Systems Design Management is being proposed for deletion. Enrolment and completion data on CPC80115 Graduate Certificate in Fire Systems Design Management is not available in NCVER. A rationale as to why this is case is because there are no training providers delivering the qualifications – no industry demand for it as it does not offer a real vocational outcome. The decision to propose the deletion of the qualification was taken in line with the AISC reforms to training packaged to remove superfluous/obsolete qualifications.
KC 14	12 units have been proposed to be merged: • CPCPDR3023A Install on-site disposal systems and CPCPDR2022A Install domestic treatment plants merged into CPCPDR3023 Install on-site domestic wastewater treatment plants and disposal systems • CPCPDR2024A Install stormwater and sub-soil drainage systems and CPCPDR2025A Drain worksite merged into CPCPDR2025 Install stormwater and sub-soil drainage systems and drain work site • CPCPDR3021A Plan layout of a residential sanitary drainage system and CPCPDR3022A Install below ground sanitary drainage systems **merged** into CPCPDR3021 Prepare layout and install below ground sanitary drainage systems • CPCPWT3022A Install and adjust water services controls and devices and CPCPWT3023A Install and commission water heating systems merged into CPCPWT3022 Install and commission water heating systems and adjust controls and devices • CPCPSN3024A Install and fit off sanitary fixtures and CPCPWT3026A Fit off and commission heated, and cold-water services merged into CPCPWT3026 Install and fit off sanitary fixtures, water services and adjust water service controls • CPCPSN3023 Fabricate and install sanitary stacks and CPCPSN3011 Plan the layout of a residential plumbing system merged. • CPCPGS3056A Install gas piping systems and CPCPGS3057A Size consumer gas piping systems merged into CPCPGS3056 Size and install consumer gas piping systems.
KC 15	Deletion of five units of competency: • CPCPDR2023A Maintain effluent disinfection systems • CPCPGS3050A Install Type B gas appliances flues • CPCSFS8001 Define scope of and initiate special hazard fire systems design projects • CPCSFS8002 Analyse, design and evaluate complex special hazard fire systems • CPCSFS8003 Develop and submit tenders for fire systems design solutions

KC 16	Nested qualification approach: The plumbing and fire services training package component have been developed from a nesting perspective. The AQF defines the nesting when 'integrated qualifications are purposely designed qualifications that enable explicit articulation pathways and encompass more than one AQF level and/or qualification type and/or education and training sector'. The nesting qualification is an approach that better supports occupational pathways and aligns with the AQF Pathway policy. This concept of a qualification having 'multiple entry and exit points' would be supported by these AQF definitions.
KC 17	Throughout the project lifecycle, it was agreed by the TAG to carry out a separate consultation process to bring the following accredited course into the national register, Certificate IV in Fire Compliance (30909QLD). This scope of work is expected to commence June/July 2020 and its aim is to strengthen the AQF alignment between the Certificate III and Diploma fire protection qualifications. As present, there is no Certificate IV in fire protection qualification available in the national register.

Occupational outcomes

Certificate II in Drainage reflects the role of a drainer, responsible for carrying out installation of below ground stormwater and sub-soil drainage systems, sanitary drainage systems, domestic treatment plants, on-site disposal systems and trench support, locating and clearing blockages and/or installing prefabricated inspection openings and chambers.

Certificate III in Fire Protection reflects the trade qualified role of a person installing, testing, maintaining, routine service and repairing a range of fire protection systems.

Certificate III in Gas Fitting reflects the trade qualified role of a person installing, testing, maintaining and repairing gas lines, meters, regulators and piping systems downstream of the billing meter, and appliances and ancillary equipment such as hot water systems, gas heaters and heat pumps associated with the use of fuel gases, including LPG systems.

Certificate III in Plumbing is a trade qualification for plumbers in residential, industrial and commercial workplaces assembling, installing and repairing water, drainage, gas, sewerage, ventilation and heating systems in both existing and new constructions.

Certificate III in Roof Plumbing reflects the trade qualified role of a person installing, maintaining and repairing flashings, metal roof and wall claddings and rainwater products such as gutters and downpipes, and other accessories on residential, industrial and commercial buildings.

Certificate IV in Plumbing and Services reflects the role of an experienced plumbing service operator with advanced technical skills and/or responsibility for project design and supervision, or a hydraulic consultant, responsible for designing hydraulic components and systems that meet client requirements and help in effective water management in domestic, commercial and industry contexts.

Diploma of Hydraulic Services Design reflects the role of a specialist hydraulic design consultant who designs plumbing and services systems in domestic, commercial and industrial contexts. The qualification includes the skills and knowledge to design complex hydraulic systems.

Diploma of Fire Systems Design reflects and supports the role of fire systems designers who prepare detailed technical designs and documentation for water-based fire suppression systems and/or fire detection and occupant warning systems.

Decision being sought from the AISC

The Construction, Plumbing and Services IRC requests that the AISC consider the Training Package components for endorsement.

C. Evidence of industry support

The Construction, Plumbing and Services IRC supports the submission of Training Package components put forward in this Case for Endorsement.

Signed on behalf by the appointed Deputy Chair of the Construction, Plumbing and Services IRC.

Name of IRC Chair: Stuart Maxwell

Signature of IRC Chair:

Date: 23 June 2020

State and Territory Training Authority responses to the Case for Endorsement

The project was put through the quality assurance process then sent to the STAs for review and sign-off on 16 March 2020. The STAs had a month to review the package and provide feedback. This timeframe closed on 16 April 2020. During this period the STAs were reminded that feedback was due.

STA	Response	Supports Case for Endorsement
WA	WA advised of minor coding issues: these issues were resolved. A few other updates are required as per WA feedback.	Yes
VIC	VIC raised a range of concerns ranging from funding and implementation to equivalency and minor coding errors.	Non-support confirmed 22 May 2020.
QLD	QLD raised concerns of licensing, consultation, disruption to small businesses and employers, and the apprenticeship model.	Non-support confirmed 20 May 2020.
ACT	ACT requested one more week to provide feedback. To date, a response has not been received	-
NSW	Thank you for the opportunity to provide feedback on the Case for Endorsement for the Plumbing and Fire Services Project as part of the CPC Construction, Plumbing and Services Training Package (Release 6.0).	Yes
NT	To date, a response has not been received	The NT has no objections to this Case being submitted for endorsement to AISC.
SA	To date, a response has not been received	-
TAS	To date, a response has not been received	-

See **Appendix H: STA report by exception feedback** for details relating to the issues raised by the STAs.

D. Industry expectations about training delivery

Advice about industry's expectations of training delivery

This project aimed to follow the AISCs requirements and support the COAG Industry and Skills Council reforms to Training Packages by developing:

- qualifications that better reflect occupational standards
- units of competency that provide a clear intended outcome
- a comprehensive skills and knowledge base for ensuring that vital life safety work associated with these qualifications respond to various government fire safety inquiries and community expectations.

The revised units of competency have been transitioned to align with the *Standards for Training Packages 2012*.

The impact of the changes of the proposed endorsed components are as follows:

- RTOs will be notified by training.gov.au of the changes in the training products
- RTOs will be required to adapt all aspects of training and assessment to the changes in structure and content in the units of competency and their assessment requirements.

RTOs can expect a series of changes. RTOs will be required to:

- assess and implement the mandatory delivery and assessment requirements specified in the endorsed components
- adjust training and assessment strategies
- review delivery and assessment resources
- address and enhance supporting material and resources to address assessment requirements.

IRC recommendation on traineeships and apprenticeships

The Construction, Plumbing and Services IRC has updated the qualifications to support existing apprenticeship arrangements.

E. Implementation of the new training packages

Advice on occupational and licensing requirements

It is important to recognise that the proposed changes to the plumbing and fire services training package components does not introduce new licencing requirements. The scope of work that a plumbing and/or fire protection practitioner undertakes under a trade is determined by the relevant regulatory body in each jurisdiction under the relative legislative framework for that jurisdiction – not a qualification. This is case across the plumbing and fire scope of work.

The introduction of an updated and/or new qualification does not normally remove the rights for existing licenced or registered practitioners. The relevant regulatory body is responsible to ensure licenced/registered plumbing practitioners upgrade to the new qualification (and this would normally coincide with a set timeframe).

It is expected that the changes implemented to the Training Package will better suit industry licensing due to the better identification and response to well-defined job roles that were not as clear in the current Training Package.

Implementation issues of note and management strategy

The endorsed components have been developed to:

- align with the Standards for Training Packages 2012
- support the approach of the standards to develop qualifications that are accessible in content, format and logic
- support industry relevant training and assessment practices.

The impact for enterprises is expected to be a positive one. The proposed endorsed components will provide enterprises with a workforce that can apply relevant skills and knowledge across sectors. The proposed endorsed components meet the requirements for the *Standards for Training Packages 2012* and have been uploaded onto the National Register through the Training Package Content Management System (TPCMS) and published on Training.gov.au (TGA).

Advice on downstream effects of the changes

Training providers will have to update their Scope of Registration and their training and assessment materials.

Given the scale of the project, the Construction, Plumbing and Services IRC supports a 12-month extension on top of the existing 12-month teach-out period provided by ASQA.

F. Quality assurance reports

Quality reports

Editorial Report

An editorial report was undertaken by Sally Tansley.

Editorial Report

1. Cover page	

Information required	Detail
Training Package title and code	CPC Construction, Plumbing and Services Training Package Release 6.0
Number of new qualifications and their titles	None.
Number of revised qualifications and their titles	8 revised qualifications: • CPC20720 Certificate II in Drainage • CPC32420 Certificate III in Plumbing • CPC32620 Certificate III in Roof Plumbing • CPC32720 Certificate III in Gas Fitting • CPC32820 Certificate III in Fire Protection • CPC40920 Certificate IV in Plumbing and Services • CPC50520 Diploma of Fire Systems Design • CPC50620 Diploma of Hydraulic Services Design
Number of new units of competency and their titles	6 (see case for endorsement)
Number of revised units of competency and their titles	157 (see case for endorsement)
Confirmation that the draft training package components are publication-ready	Yes.
Is the Editorial Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide a name.	Yes, Sally Tansley
Date of completion of the report	16-03-20

2. Content and structure

Units of competency

Editorial requirements	Comments
Standard 5: • The structure of units of competency complies with the unit of competency template.	Yes
Standard 7: • The structure of assessment requirements complies with the assessment requirements template.	Yes

Qualifications

Editorial requirements	Comments by the editor
Standard 9: • The structure of the information for qualifications complies with the qualification template.	Yes
Standard 10: • Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template.	Yes

Companion Volumes

Editorial requirements	Comments by the editor
Standard 11: • A quality assured companion volume implementation guide is available and complies with the companion volume implementation guide template.	Yes

3. Proofreading

Editorial requirements	Comments by the editor
• **Unit codes and titles** and **qualification codes and titles** are accurately cross-referenced throughout the training package product(s) including mapping information and packaging rules, and in the companion volume implementation guide.	Yes
• Units of competency and their **content** are **presented in full**.	No, see below.
• The author of the Editorial Report is satisfied with the quality of the training products, specifically with regard to: ○ absence of spelling, grammatical and typing mistakes ○ consistency of language and formatting ○ logical structure and presentation of the document. ○ compliance with the required templates	Yes, much work was spent on going through all of the documents of which there were of course numerous.

Equity Report

An equity report was undertaken by Sally Tansley.

Equity Report
Section 1 – Cover page

Information required	Detail
Training Package title and code	CPC Construction, Plumbing and Services Training Package Release 6.0
Number of new qualifications and their titles	None.
Number of revised qualifications and their titles	8 revised qualifications: • CPC20720 Certificate II in Drainage • CPC32420 Certificate III in Plumbing • CPC32620 Certificate III in Roof Plumbing • CPC32720 Certificate III in Gas Fitting • CPC32820 Certificate III in Fire Protection • CPC40920 Certificate IV in Plumbing and Services • CPC50520 Diploma of Fire Systems Design • CPC50620 Diploma of Hydraulic Services Design
Number of new units of competency and their titles	6 (see case for endorsement)
Number of revised units of competency and their titles	155 (see case for endorsement)
Confirmation that the draft training package components meet the requirements in Section 2 *Equity checklist of draft training package components*	Yes
Is the Equity Report prepared by a member of the Quality Assurance Panel? If 'yes' please provide the name.	Yes, Sally Tansley
Date of completion of the report	16-03-20

Section 2 – Equity checklist of draft training package components

Equity requirements	Equity reviewer comments Provide brief commentary on whether the draft endorsed components meet each of the equity requirements
The training package component(s) comply with Standard 2 of the *Standards for Training Packages 2012*. The standard requires compliance with the *Training Package Products Policy*, specifically with the access and equity requirements: • Training Package developers must meet their obligations under Commonwealth anti-discrimination legislation and associated standards and regulations. • Training Package developers must ensure that Training Packages are flexible and that they provide guidance and recommendations to enable reasonable adjustments in implementation.	Yes, access and equity requirements are fully complied with in my opinion. Obligations are met under Commonwealth anti-discrimination legislation and associated standards and regulations e.g. reference to reasonable adjustment and Disability Standards.

Section 3 - Training Package Quality Principles

Quality Principle 4

Be **flexible** to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces.

Key features
Do the units of competency meet the diversity of individual and employer needs and support equitable access and progression of learners?
What evidence demonstrates that the units of competency and their associated assessment requirements are clearly written and have consistent breadth and depth so that they support implementation across a range of settings?
Are there other examples that demonstrate how the key features of flexibility are being achieved?

Equity requirements	Equity reviewer comments
1. What evidence demonstrates that the draft components provide flexible qualifications/units of competency that enable application in different contexts?'	Flexibility is more challenging with this highly regulated, licenced industry. I believe flexibility has been incorporated as much as possible given limitations.
2. Is there evidence of multiple entry and exit points?	Yes, learners could exit and enter with units that would give credit to a range of other qualifications. Completion of the qualifications would also allow learners to progress into higher level qualifications.
3. Have prerequisite units of competency been minimised where possible?	There are a number of pre-requisites but it appears that they have been minimised as far as is possible.
4. Are there other examples of evidence that demonstrate how the key features of the flexibility principle are being achieved?	No.

Quality Principle 5

Facilitate **recognition** of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors.

Key features
Support learner transition between education sectors.

Equity requirements	Equity reviewer comments
1. What evidence demonstrates pathways from entry and preparatory level as appropriate to facilitate movement between schools and VET, from entry level into work, and between VET and higher education qualifications?	See comments under point 2 of the previous section.

Quality Principle 6

Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements.

Key features
Support implementation across a range of settings and support sound assessment practices.

Equity requirements	Equity reviewer comments
1. Does the Companion Volume Implementation Guide include advice about: • Pathways • Access and equity • Foundation skills? (see Training Package Standard 11)	Yes and the information provided is sufficient to ensure understanding by readers.
2. Are the foundation skills explicit and recognisable within the training package and do they reflect and not exceed the foundation skills required in the workplace?	Yes.

Quality Report

A quality report was undertaken by Trish Gamper.

Section 1 – Cover page

Information required	Detail
Training Package title and code	***CPC Construction, Plumbing and Services Training Package (Release 6.0)***
Number of new qualifications and their titles[1]	*No new qualifications*
Number of revised qualifications and their titles	*Eight (8) revised qualifications.* *Refer to Attachment A.*
Number of new units of competency and their titles	*Six (6) new units of competency.* *Refer to Attachment B.*
Number of revised units of competency and their titles	*One hundred and fifty-five (155) revised units of competency.* *Refer to Attachment C.*
Confirmation that the panel member is independent of: • the Training Package or Training Package components review ('Yes' or 'No') • development and/or validation activities associated with the Case for Endorsement ('Yes' or 'No') • undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report ('Yes' or 'No')	*I confirm that I am independent of:* • *the Training Package or Training Package components review – Yes* • *development and/or validation activities associated with the Case for Endorsement – Yes* • *undertaking the Equity and/or Editorial Reports for the training package products that are the subject of this quality report – Yes*
Confirmation of the Training Packages or components thereof being compliant with the *Standards for Training Packages 2012*	*The CPC Construction, Plumbing and Services Training Package components are compliant with the Standards for Training Packages 2012.*

[1] When the number of training products is high the t*itles can be presented as an attached list.*

Information required	Detail
Confirmation of the Training Packages or components thereof being compliant with the *Training Package Products Policy*	*The CPC Construction, Plumbing and Services Training Package components are compliant with the Training Package Products Policy.*
Confirmation of the Training Packages or components thereof being compliant with the *Training Package Development and Endorsement Process Policy*	*The CPC Construction, Plumbing and Services Training Package components are compliant with the Training Package Development and Endorsement Process Policy.*
Panel member's view about whether: • the evidence of consultation and validation process being fit for purpose and commensurate with the scope • estimated impact of the proposed changes is sufficient and convincing	*The Case for Endorsement provides evidence that the consultation and validation process for the CPC Construction, Plumbing and Services Training Package (Release 6.0) is fit for purpose and commensurate with the scope of the project.* *The case for Endorsement also identifies the impact of the changes of the proposed endorsed components, which are as follows:* • *RTOs will be notified by training.gov.au of the changes in the training products* • *RTOs will be required to adapt all aspects of training and assessment to the changes in structure and content in the units of competency and their assessment requirements.*
Name of panel member completing Quality Report	**Trish Gamper (Gamper Consulting Services)**
Date of completion of the Quality Report	**16 March 2020**

Section 2 – Compliance with the Standards for Training Packages 2012

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
Standard 1 Training Packages consist of the following: 1. AISC endorsed components: • qualifications • units of competency • assessment requirements (associated with each unit of competency) • credit arrangements 2. One or more quality assured companion volumes	***Yes***	*A review of all draft Training Package components and the Editorial Report confirms that the CPC Construction, Plumbing and Services Training Package consist of the following components:* *1. Endorsed:* • *qualifications* • *units of competency* • *assessment requirements (associated with each unit of competency)* *2. A quality assured Training Package Companion Volume Implementation Guide.* *Please note: There are currently no credit arrangements in place between the CPC Construction, Plumbing and Services Training Package and higher education qualifications.*
Standard 2 Training Package developers comply with the *Training Package Products Policy*	***Yes***	*Artibus Innovation has complied with the Training Package Products Policy. The draft qualifications and units of competency comply with coding and titling requirements, access and equity have been addressed, foundation skills are explicit and recognisable within the Training Package components, and clear mapping tables are provided identifying equivalence and/or superseded qualifications and units of competency. Qualifications no longer required by industry have been identified and indicated for deletion from the National Register.*
Standard 3 Training Package developers comply with the AISC *Training Package Development and Endorsement Process Policy*	***Yes***	*Artibus Innovation has complied with the Training Package Development and Endorsement Process Policy. The Case for Endorsement outlines the initial research and proposed changes, consultations undertaken, stakeholder feedback ad issues raised, and the provision of draft Training Package components for review and validation.*

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
Standard 4 Units of competency specify the standards of performance required in the workplace	***Yes***	*The Case for Endorsement outlines the proposed changes required to the CPC Construction, Plumbing and Services Training Package units of competency by developing*: • *units of competency that provide a clear intended outcome* • *units of competency that align to the Standards for Training Packages 2012.* *A review of the units of competency confirms that they specify the standards of performance required in the workplace.*
Standard 5 The structure of units of competency complies with the unit of competency template	***Yes***	*A review of the units of competency confirms that the structure of the units of competency complies with the required template.* *The Editorial Report also supports compliance with the template.*
Standard 6 Assessment requirements specify the evidence and required conditions for assessment	***Yes***	*A review of the units of competency and their associated assessment requirements confirms they clearly specify evidence and required conditions for assessment.* *Specific queries relating to evidence required were highlighted and confirmed as correct industry requirements by Artibus Innovation.*
Standard 7 Every unit of competency has associated assessment requirements. The structure of assessment requirements complies with the assessment requirements template	***Yes***	*A review of the units of competency confirms that every unit of competency has associated assessment requirements, and the structure of the assessment requirements complies with the assessment requirements template.* *The Editorial Report also supports compliance with the template.*
Standard 8 Qualifications comply with the Australian Qualifications Framework specification for that qualification type	***Yes***	*A review of the qualifications and the AQF descriptors for the qualification level confirms that the qualifications comply with the AQF specifications for the qualification type.*
Standard 9 The structure of the information for the Australian Qualifications Framework qualification complies with the qualification template	***Yes***	*A review of the qualifications confirms that the structure of the information for the qualification complies with the qualification template.* *The Editorial Report supports compliance with the template.*

Standards for Training Packages	Standard met 'yes' or 'no'	Evidence supporting the statement of compliance or noncompliance (including evidence from equity and editorial reports)
Standard 10 Credit arrangements existing between Training Package qualifications and Higher Education qualifications are listed in a format that complies with the credit arrangements template	***No***	*There are currently no credit arrangements between the CPC Construction, Plumbing and Services Training Package qualifications and higher education qualifications.*
Standard 11 A quality assured companion volume implementation guide produced by the Training Package developer is available at the time of endorsement and complies with the companion volume implementation guide template.	***Yes***	*A quality assured Companion Volume Implementation Guide (CVIG) has been produced by Artibus Innovations and will be available at the time of endorsement.* *The Editorial Report confirms that a CVIG has been developed and complies with the required template.*
Standard 12 Training Package developers produce other quality assured companion volumes to meet the needs of their stakeholders as required.	***NA***	

Section 3 – Compliance with the training package quality principles

Note: *not all training package quality principles might be applicable to every training package or its components. Please provide a supporting statement/evidence of compliance or non-compliance against each principle.*

Quality principle 1. Reflect identified workforce outcomes

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance/non compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Driven by industry's needs	***Yes***	*Proposed changes to the CPC Construction, Plumbing and Services Training Package components are based on an earlier scoping study conducted by the Construction and Property Services Industry Skills Council and supported by approval of the Australian I*ndustry and Skills Committee (AISC).
Compliant and responds to government policy initiatives Training package component responds to the COAG Industry and Skills Council's (CISC) training package-related initiatives or directions, in particular the 2015 training package reforms. Please specify which of the following CISC reforms are relevant to the training product and identify supporting evidence: • ensure obsolete and superfluous qualifications are removed from the system • ensure that more information about industry's expectations of training delivery is available to training providers to improve their delivery and to consumers to enable more informed course choices	***Yes***	*The Case for Endorsement outlines the proposed changes to the CPC Construction, Plumbing and Services Training Package, which are compliant and respond to government policy initiatives by:* • *proposing five (5) qualifications for deletion due to limited or no enrolments, thus supporting the removal of obsolete and superfluous qualifications from the national Register* • *providing qualifications with clearer packaging rules* • *streaming qualifications to better reflect industry outcomes and to support career progression and movement in the sector* • *revising qualifications and units of competency to better reflect current industry skills, knowledge and work practices and minimising duplication which will assist in improving efficiency in training delivery and assessment of units of competency.*

• ensure that the training system better supports individuals to move easily from one related occupation to another • improve the efficiency of the training system by creating units that can be owned and used by multiple industry sectors • foster greater recognition of skill sets		
Reflect contemporary work organisation and job profiles incorporating a future orientation	***Yes***	*A review of the draft Training Package components and the Case for Endorsement confirms that the qualifications and units of competency more accurately reflect current work practices.*

Quality principle 2: Support portability of skills and competencies including reflecting licensing and regulatory requirements

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Support movement of skills within and across organisations and sectors	***Yes***	*The revised qualifications, though the incorporation of streams and the increase in complexity of the units of competency, support skills development within the construction, plumbing and services sector. In addition, incorporating imported units of competency within the qualifications and the allowance to import an additional unit/s of competency from other Training Packages or accredited courses to meet organisational needs will assist in supporting movement across organisations and sectors.*
Promote national and international portability	***Yes***	*Portability of skills has been identified in the Case for Endorsement, which notes that proposed endorsed components will provide enterprises with a workforce that can apply relevant skills and knowledge across sectors.*

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Reflect regulatory requirements and licensing	***Yes***	*The Case for Endorsement and a review of all draft Training Package components confirms that licensing and regulatory requirements have been considered and incorporated into every qualification and unit of competency.*

Quality principle 3: Reflect national agreement about the core transferable skills and core job-specific skills required for job roles as identified by industry

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Reflect national consensus	***Yes***	*The Case for Endorsement outlines the consultation process taken with industry stakeholders, and key issues and steps taken to ensure national consensus of all draft Training Package components.* *While generally supported, the Case for Endorsement does note there are some dissenting views in the area of fire protection.*
Recognise convergence and connectivity of skills	***Yes***	*A review of the draft Training Package components shows the progression from entry level requirements to higher level skill requirements within the plumbing and fire services sector. This progression, in addition to the incorporation of sector-specific and imported units of competency recognises the convergence and connectivity of skills.*

Quality principle 4: Be flexible to meet the diversity of individual and employer needs including the capacity to adapt to changing job roles and workplaces

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Meet the diversity of individual and employer needs	***Yes***	*The CPC Construction, Plumbing and Services Training Package qualifications provide flexibility in the choice of elective units of competency to meet the diversity of individual and employer needs.*
Support equitable access and progression of learners	***Yes***	*A review of the draft Training Package components, the Case for Endorsement and Equity Report confirms that the draft components support equitable access and progression of learners.*

Quality principle 5: Facilitate recognition of an individual's skills and knowledge and support movement between the school, vocational education and higher education sectors

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Support learner transition between education sectors	***NA***	*Pathways from school to the draft qualifications, and from these qualifications to higher education qualifications, are not applicable.*

Quality principle 6: Support interpretation by training providers and others through the use of simple, concise language and clear articulation of assessment requirements

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Support implementation across a range of settings	***Yes***	*A review of the draft Training Package components supports implementation across a range of settings. Implementation advice is also contained in the CVIG.*
Support sound assessment practice	***Yes***	*Draft Training Package components support sound assessment practices through clearly written units of competency and associated assessment requirements.*

Key features	Quality principle is met: Yes / No or N/A	Evidence demonstrating compliance with the quality principle Please see examples of evidence in the *Training Package Development and Endorsement Process Policy*
Support implementation	***Yes***	*The CVIG provides implementation advice on the plumbing and fire services sector.*

Attachment A: Revised qualifications

Code	Title
CPC20720	Certificate II in Drainage
CPC32420	Certificate III in Plumbing
CPC32620	Certificate III in Roof Plumbing
CPC32720	Certificate III in Gas Fitting
CPC32820	Certificate III in Fire Protection
CPC40920	Certificate IV in Plumbing and Services
CPC50520	Diploma of Fire Systems Design
CPC50620	Diploma of Hydraulic Services Design

Attachment B: New units of competency

Code	Title
CPCPCM3025	Install trench support
CPCPDR3024	Maintain and service domestic treatment plants and onsite sewerage facilities
CPCPDR3025	Plan layout and install vacuum drainage systems
CPCPCM4015	Access and interpret regulatory requirements for plumbing and services industry
CPCPRF3027	Select and install a heritage roof system
CPCSFS5017	Create detailed designs for foam suppression systems

Attachment C: Revised units of competency

Code	Title
CPCCSV5009	Assess the impact of fire on building materials
CPCPCM2039	Carry out interactive workplace communication
CPCPCM2040	Read plans, calculate quantities and mark out materials
CPCPCM2041	Work effectively in the plumbing services sector
CPCPCM2043	Carry out WHS requirements
CPCPCM2045	Handle and store plumbing materials
CPCPCM2046	Use plumbing hand and power tools
CPCPCM2047	Carry out levelling
CPCPCM2048	Cut and join sheet metal
CPCPCM2049	Cut mild steel using oxy-acetylene equipment
CPCPCM2052	Weld mild steel using oxy-acetylene equipment
CPCPCM2053	Weld using metal arc welding equipment
CPCPCM2054	Carry out simple concreting and rendering
CPCPCM2055	Work safely on roofs
CPCPCM3021	Flash penetrations through roofs and walls
CPCPCM3022	Weld polymer pipes using fusion method
CPCPCM3023	Fabricate and install non-ferrous pressure piping
CPCPCM3024	Prepare simple drawings
CPCPCM4011	Carry out work-based risk control processes
CPCPCM4012	Estimate and cost work
CPCPCM4013	Produce 2-D architectural drawings using design software
CPCPCM5010	Design complex sanitary plumbing and drainage systems
CPCPCM5011	Design complex cold water systems
CPCPCM5012	Design complex stormwater and roof drainage systems
CPCPCM5013	Design complex (non-solar) heated water systems
CPCPCM5014	Design sewer infrastructure systems
CPCPDR2021	Locate and clear blockages
CPCPDR2025	Install stormwater and sub-soil drainage systems and drain work site
CPCPDR2026	Install prefabricated inspection openings and inspection chambers
CPCPDR3021	Plan layout and install below ground sanitary drainage systems
CPCPDR3023	Install on-site domestic wastewater treatment plants and disposal systems
CPCPDR4011	Design and size sanitary drainage systems
CPCPDR4012	Design and size stormwater drainage systems
CPCPDR4013	Design and size domestic treatment plant disposal systems
CPCPFS2021	Connect static storage tanks for fixed fire protection systems
CPCPFS2022	Install portable fire equipment
CPCPFS3030	Design fire sprinkler systems using pre-calculated charts and tables
CPCPFS3031	Fabricate and install fire hydrant and hose reel systems
CPCPFS3034	Install control valve assemblies, actuating devices and local alarms
CPCPFS3036	Install special hazard systems

Code	Title
CPCPFS3037	Install residential life safety sprinkler systems
CPCPFS3038	Test and maintain fire hydrant and hose reel installations
CPCPFS3040	Conduct basic functional testing of water-based fire-suppression systems
CPCPFS3041	Inspect and test fire pumpsets
CPCPFS3042	Conduct annual routine service of complex water-based fire-suppression systems
CPCPFS3043	Conduct functional water flow testing
CPCPFS3044	Install distribution and range pipes
CPCPFS3045	Fit off sprinkler heads, controls and ancillary equipment
CPCPFS3046	Test the integrity of water-based fire protection systems using pressure
CPCPFS3047	Test and maintain automatic fire sprinklers
CPCPFS3048	Install fixed fire pumpsets
CPCPFS3049	Conduct preventive maintenance on fixed fire pumpsets
CPCPFS4021	Commission domestic and residential fire suppression sprinkler systems
CPCPFS4022	Commission and maintain special hazard fire suppression systems
CPCPFS4023	Commission fire system pumpsets
CPCPFS4024	Design residential fire sprinkler systems
CPCPFS4025	Commission fire alarm and detection system interface devices
CPCPFS4026	Commission firefighting appliances
CPCPFS4027	Commission fire sprinkler systems
CPCPFS5010	Design fire-compliant hydraulic services
CPCPFS5011	Design fire sprinkler systems Diploma Fire
CPCPFS5012	Design fire hydrant and hose reel systems
CPCPGS3046	Install LPG systems in caravans, mobile homes and mobile workplaces
CPCPGS3047	Install LPG systems in marine craft
CPCPGS3048	Install gas pressure control equipment
CPCPGS3049	Install gas appliance flues
CPCPGS3051	Purge consumer piping
CPCPGS3052	Maintain Type A gas appliances
CPCPGS3053	Disconnect and reconnect Type A gas appliances
CPCPGS3054	Calculate and install natural ventilation for Type A gas appliances
CPCPGS3055	Install gas sub-meters
CPCPGS3056	Size and install consumer gas piping systems
CPCPGS3059	Install LPG storage of aggregate storage capacity up to 500 litres
CPCPGS3060	Install LPG storage of aggregate storage capacity exceeding 500 litres and less than 8KL
CPCPGS3061	Install and commission Type A gas appliances
CPCPGS4011	Design and size consumer gas installations
CPCPGS4022	Service Type A gas appliances
CPCPGS4023	Install, commission and service Type B gas appliances
CPCPIG2021	Design domestic urban irrigation systems
CPCPIG3021	Set out, install and commission irrigation systems

Code	Title
CPCPIG3022	Install and commission domestic irrigation pumps
CPCPMS2021	Assemble mechanical services components
CPCPMS3031	Fabricate and install steel pressure piping
CPCPMS3032	Select and fit insulation and sheathing
CPCPMS3033	Install small bore heating systems
CPCPMS3034	Install and test medical gas pipeline systems
CPCPMS3035	Install and test ducting systems
CPCPMS3036	Install air handling units
CPCPMS3037	Install and commission a single head split system air conditioning
CPCPMS3038	Install air conditioning control equipment
CPCPMS3039	Maintain mechanical services equipment
CPCPMS3040	Install and commission evaporative air cooling systems
CPCPMS3041	Install domestic solid fuel burning appliances
CPCPMS4011	Design, size and lay out heating and cooling systems
CPCPMS4022	Commission air and water systems
CPCPMS4023	Design compressed air systems
CPCPMS5010	Design steam generation and distribution systems
CPCPMS5011	Design air conditioning and ventilation systems
CPCPMS5012	Design sound attenuated hydraulic services
CPCPMS5013	Design hydronic heating and cooling systems
CPCPPS5000	Design gas bulk storage systems
CPCPPS5001	Design industrial gas systems
CPCPPS5002	Design gas reticulation systems
CPCPPS5014	Locate and maintain piping systems
CPCPPS5015	Inspect plumbing and drainage systems
CPCPPS5023	Design solar water heating systems
CPCPPS5024	Conduct a water audit and identify water-saving initiatives
CPCPPS5025	Design grey water re-use systems
CPCPPS5026	Design rainwater collection, storage, distribution and re-use systems
CPCPPS5027	Design irrigation systems
CPCPPS5028	Design trade waste pre-treatment systems
CPCPPS5030	Design pump systems
CPCPPS5032	Design siphonic stormwater drainage systems
CPCPPS5033	Design vacuum drainage systems
CPCPRF2022	Select and install roof sheeting and wall cladding
CPCPRF2023	Collect and store roof water
CPCPRF2024	Fabricate roof coverings for curved structures
CPCPRF3021	Receive roofing materials
CPCPRF3022	Fabricate and install roof drainage systems
CPCPRF3023	Fabricate and install external flashings
CPCPRF3024	Install roof components
CPCPRF3025	Install roof coverings to curved roof structures

Code	Title
CPCPRF3026	Install roof sheets, wall cladding and complex flashings
CPCPRF4011	Design and size roof drainage systems
CPCPSN3011	Plan the layout of a residential sanitary plumbing system and fabricate and install sanitary stacks
CPCPSN3022	Install discharge pipes
CPCPSN3025	Install pre-treatment facilities
CPCPSN3026	Install sewerage pumpsets
CPCPSN4011	Design and size sanitary plumbing systems
CPCPWT3020	Connect and install storage tanks to a domestic water supply
CPCPWT3021	Set out and install water services
CPCPWT3022	Install and commission water heating systems and adjust controls and devices
CPCPWT3024	Install and maintain domestic water treatment equipment
CPCPWT3025	Install water pumpsets
CPCPWT3026	Install and fit off sanitary fixtures, water services and adjust water service controls
CPCPWT3027	Install backflow prevention devices
CPCPWT3028	Install property service
CPCPWT3029	Install water pipe systems
CPCPWT3030	Install home fire sprinkler systems
CPCPWT4011	Design and size heated and cold-water services and systems
CPCPWT4022	Commission and maintain backflow prevention devices
CPCPWT4023	Commission and maintain hot and heated water temperature control devices
CPCSFS5001	Define scope and hazard level of fire systems design projects
CPCSFS5002	Research and interpret detailed fire systems design project requirements
CPCSFS5003	Develop plans and methodology for fire systems design projects
CPCSFS5005	Research and evaluate fire system technologies and components
CPCSFS5006	Create detailed designs for fire sprinkler systems
CPCSFS5007	Create detailed designs for hydrant and hose reel systems
CPCSFS5008	Create detailed designs for fire detection and warning systems
CPCSFS5009	Create detailed designs for fire systems' water supplies
CPCSFS5010	Provide documentation and support for fabrication of fire sprinkler systems
CPCSFS5011	Provide design documentation and review and support fire system installation processes
CPCSFS5013	Support commissioning processes and finalise fire systems design projects
CPCSFS5014	Conduct annual fire systems inspections
CPCSFS5015	Prepare documentation for annual fire systems inspections

Declaration

Artibus Innovation declares that the proposed components of the CPC Construction, Plumbing and Services Training Package Release 6.0 adhere to the requirements of the *Standards for Training Packages 2012*, the *Training Package Products Policy*, and the *Training Package Development and Endorsement Process Policy.*

The CPC Construction, Plumbing and Services Training Package Companion Volume Implementation Guide can be located on the VETNet website at:

- https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad
- Artibus Innovation official website, through an external link: www.artibus.com.au.

G. Implementation of COAG Industry Skills Council reforms to training packages

Supporting COAG Industry Skills Council reforms to training packages

The proposed changes aim to implement key principles of COAG Industry and Skills Council reforms to training packages:

Reform	Evidence of reform being addressed
1. Remove obsolete and superfluous qualifications from the system	Five qualifications are proposed for deletion to support the removal of obsolete and superfluous qualifications from the National Register.
2. Make more information about industry's expectations of training delivery available	Industry can expect qualifications that outline the requirements of packaging rules clearer. The majority of the units remain equivalent, this should facilitate the implementation of the Training Package components.
3. Ensure the training system better supports individuals to move easily from one related occupation to another	The qualifications have been developed to support learner articulations into higher level AQF qualifications. This supports individuals moving into different qualifications and occupations.
4. Improve the efficiency of the training system at unit level	Units have been updated using clear, unambiguous plain English. Redundant and unnecessary detail has been removed and we have improved alignment between unit outcomes, content and assessment requirements.
5. Foster greater recognition of skill sets	Skill sets were not considered in this project.

H. Proposed training package components

Qualification Mapping

Qualification mapping information			
CPC Construction, Plumbing and Services Training Package 5.0	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**Equivalency status**
CPC20720 Certificate II in Drainage	CPC20712 Certificate II in Drainage	Qualification supersedes and is equivalent to CPC20712 Certificate II in Drainage.	E
CPC32420 Certificate III in Plumbing	CPC32413 Certificate III in Plumbing	Supersedes and is not equivalent to CPC32413 Certificate III in Plumbing.	N
CPC32620 Certificate III in Roof Plumbing	CPC32612 Certificate III in Roof Plumbing	Qualification supersedes and is equivalent to CPC32612 Certificate III in Roof Plumbing	E
CPC32720 Certificate III in Gas Fitting	CPC32713 Certificate III in Gas Fitting	Qualification supersedes and is equivalent to CPC32713 Certificate III in Gas Fitting	E
CPC32820 Certificate III in Fire Protection	CPC32813 Certificate III in Fire Protection	Qualification supersedes and is equivalent to CPC32813 Certificate III in Fire Protection	E
CPC40920 Certificate IV in Plumbing and Services	CPC40912 Certificate IV in Plumbing and Services	Supersedes and is not equivalent to CPC40912 Certificate IV in Plumbing and Services	N
CPC50520 Diploma of Fire Systems Design	CPC50509 Diploma of Fire Systems Design	Supersedes and is equivalent to CPC50509 Diploma of Fire Systems Design.	E
CPC50620 Diploma of Hydraulic Services Design	CPC50612 Diploma of Hydraulic Services Design	Qualification supersedes and is equivalent to CPC50612 Diploma of Hydraulic Services Design.	E

Deleted qualifications:

1. CPC20812 Certificate II in Metal Roofing and Cladding
2. CPC20912 Certificate II in Urban Irrigation
3. CPC32513 Certificate III in Plumbing (Mechanical Services)
4. CPC50412 Diploma of Plumbing and Services
5. CPC80115 Graduate Certificate in Fire Systems Design Management

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCCSV5009 Assess the impact of fire on building materials	CPCCSV5009A Assess the impact of fire on building materials	Supersedes and is equivalent to CPCCSV5009A Assess the impact of fire on building materials. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2039 Carry out interactive workplace communication	CPCPCM2039A Carry out interactive workplace communication	Supersedes and is equivalent to CPCPCM2039A Carry out interactive workplace communication. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2040 Read plans, calculate quantities and mark out materials	CPCPCM2040A Read plans and calculate plumbing quantities CPCPCM2050A Mark out materials	Supersedes and is non-equivalent to CPCPCM2040A Read plans and calculate plumbing quantities, and CPCPCM2050A Mark out materials. Units merged to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPCM2041 Work effectively in the plumbing services sector	CPCPCM2041A Work effectively in the plumbing services sector	Supersedes and is equivalent to CPCPCM2041A Work effectively in the plumbing services sector. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2043 Carry out WHS requirements	CPCPCM2043A Carry out WHS requirements	Supersedes and is equivalent to CPCPCM2043A Carry out WHS requirements. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2045 Handle and store plumbing materials	CPCPCM2045A Handle and store plumbing materials	Supersedes and is equivalent to CPCPCM2045A Handle and store plumbing materials. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2046 Use plumbing hand and power tools	CPCPCM2046A Use plumbing hand and power tools	Supersedes and is non-equivalent to CPCPCM2046A Use plumbing hand and power tools. Updated to meet the Standards for Training Packages 2012.	N

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPCM2047 Carry out levelling	CPCPCM2047A Carry out levelling	Supersedes and is equivalent to CPCPCM2047A Carry out levelling. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2048 Cut and join sheet metal	CPCPCM2048A Cut and join sheet metal	Supersedes and is equivalent to CPCPCM2048A Cut and join sheet metal. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2049 Cut mild steel using oxy-acetylene equipment	CPCPCM2049A Cut using oxy-LPG-acetylene equipment	Supersedes and is equivalent to CPCPCM2049A Cut using oxy-LPG-acetylene equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2052 Weld mild steel using oxy-acetylene equipment	CPCPCM2052A Weld using oxy-acetylene equipment	Supersedes and is equivalent to CPCPCM2052A Weld using oxy-acetylene equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2053 Weld using metal arc welding equipment	CPCPCM2053A Weld using manual metal arc welding equipment	Supersedes and is equivalent CPCPCM2053A Weld using manual metal arc welding equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2054 Carry out simple concreting and rendering	CPCPCM2054A Carry out simple concreting and rendering	Supersedes and is equivalent to CPCPCM2054A Carry out simple concreting and rendering. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM2055 Work safely on roofs	CPCPCM2055A Work safely on roofs	Supersedes and is equivalent to CPCPCM2055A Work safely on roofs. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM3021 Flash penetrations through roofs and walls	CPCPCM3021A Flash penetrations through roofs and walls	Supersedes and is equivalent to CPCPCM3021A Flash penetrations through roofs and walls. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPCM3022 Weld polymer pipes using fusion method	CPCPCM3022A Weld polyethylene and polypropylene pipes using fusion method	Supersedes and is equivalent to CPCPCM3022A Weld polyethylene and polypropylene pipes using fusion method. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM3023 Fabricate and install non-ferrous pressure piping	CPCPCM3023A Fabricate and install non-ferrous pressure piping	Supersedes and is equivalent to CPCPCM3023A Fabricate and install non-ferrous pressure piping. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM3024 Prepare simple drawings	CPCPCM4014A Prepare simple sketches and drawings	Supersedes and is equivalent to CPCPCM4014A Prepare simple sketches and drawings. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM3025 Install trench support		Newly created unit.	
CPCPCM4011 Carry out work-based risk control processes	CPCPCM4011A Carry out work-based risk control processes	Supersedes and is equivalent to CPCPCM4011A Carry out work-based risk control processes. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM4012 Estimate and cost work	CPCPCM4012A Estimate and cost work	Supersedes and is equivalent to CPCPCM4012A Estimate and cost work. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM4013 Produce 2-D architectural drawings using design software	CPCPCM4013A Produce 2-D architectural drawings using CAD software	Supersedes and is equivalent to CPCPCM4013A Produce 2-D architectural drawings using CAD software. Minor title change. Updated to meet the Standards for Training Packages 2012. Minor title change.	E
CPCPCM4015 Access and interpret regulatory requirements for the plumbing and services industry		Newly created unit.	

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPCM5010 Design complex sanitary plumbing and drainage systems	CPCPCM5010A Design complex sanitary plumbing and drainage systems	Supersedes and is equivalent to CPCPCM5010A Design complex sanitary plumbing and drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM5011 Design complex cold water systems	CPCPCM5011A Design complex cold water systems	Supersedes and is equivalent to CPCPCM5011A Design complex cold water systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM5012 Design complex stormwater and roof drainage systems	CPCPCM5012A Design complex stormwater and roof drainage systems	Supersedes and is equivalent to CPCPCM5012A Design complex stormwater and roof drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM5013 Design complex (non-solar) heated water systems	CPCPCM5013A Design complex (non-solar) heated water systems	Supersedes and is equivalent to CPCPCM5013A Design complex (non-solar) heated water systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPCM5014 Design sewer infrastructure systems	CPCPCM5014A Design sewer infrastructure systems	Supersedes and is equivalent to CPCPCM5014A Design sewer infrastructure systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPDR2021 Locate and clear blockages	CPCPDR2021A Locate and clear blockages	Supersedes and is equivalent to CPCPDR2021A Locate and clear blockages. Updated to meet the Standards for Training Packages 2012.	E
	CPCPDR2023A Maintain effluent disinfection systems	Unit of competency proposed for deletions, deemed superfluous by industry in development process.	
CPCPDR2025 Install stormwater and sub-soil drainage systems and drain work site	CPCPDR2024A Install stormwater and sub-soil drainage systems CPCPDR2025A Drain work site	Supersedes and is non-equivalent to CPCPDR2024A Install stormwater and sub-soil drainage systems, and CPCPDR2025A Drain work site. Units merged to reduce duplication and updated to meet the Standards for Training Packages 2012.	N

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPDR2026 Install prefabricated inspection openings and inspection chambers	CPCPDR2026A Install prefabricated inspection openings and enclosures	Supersedes and is equivalent to CPCPDR2026A Install prefabricated inspection openings and enclosures. Updated to meet the Standards for Training Packages 2012.	E
CPCPDR3021 Plan layout and install below ground sanitary drainage systems	CPCPDR3021A Plan layout of a residential sanitary drainage system CPCPDR3022A Install below ground sanitary drainage systems	Supersedes and is non-equivalent to CPCPDR3021A Plan layout of a residential sanitary drainage system, and CPCPDR3022A Install below ground sanitary drainage systems. Units merged to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPDR3023 Install on-site domestic wastewater treatment plants and disposal systems	CPCPDR2022A Install domestic treatment plants CPCPDR3023A Install on-site disposal systems	Supersedes and is non-equivalent to CPCPDR2022A Install domestic treatment plants, and CPCPDR3023A Install on-site disposal systems. Units merged into one to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPDR3024 Maintain and service domestic treatment plants and onsite sewerage facilities		Newly created unit.	
CPCPDR3025 Plan layout and install vacuum drainage systems		Newly created unit.	
CPCPDR4011 Design and size sanitary drainage systems	CPCPDR4011B Design and size sanitary drainage systems	Supersedes and is equivalent to CPCPDR4011B Design and size sanitary drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPDR4012 Design and size stormwater drainage systems	CPCPDR4012B Design and size stormwater drainage systems	Supersedes and is equivalent to CPCPDR4012B Design and size stormwater drainage systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPDR4013 Design and size domestic treatment plant disposal systems	CPCPDR4013B Design and size domestic treatment plant disposal systems	Supersedes and is equivalent to CPCPDR4013B Design and size domestic treatment plant disposal systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS2021 Connect static storage tanks for fixed fire protection systems	CPCPFS2021A Connect static storage tanks for fixed fire protection systems	Supersedes and is equivalent to CPCPFS2021A Connect static storage tanks for fixed fire protection systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS2022 Install portable fire equipment	CPCPFS2022A Install portable fire equipment	Supersedes and is equivalent to CPCPFS2022A Install portable fire equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3030 Design fire sprinkler systems using pre-calculated charts and tables	CPCPFS3030A Design pre-calculated fire sprinkler systems	Supersedes and is equivalent to CPCPFS3030A Design pre-calculated fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3031 Fabricate and install fire hydrant and hose reel systems	CPCPFS3031A Fabricate and install fire hydrant and hose reel systems	Supersedes and is equivalent to CPCPFS3031A Fabricate and install fire hydrant and hose reel systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3034 Install control valve assemblies, actuating devices and local alarms	CPCPFS3034A Install control valve assemblies, actuating devices and local alarms	Supersedes and is equivalent to CPCPFS3034A Install control valve assemblies, actuating devices and local alarms. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3036 Install special hazard systems	CPCPFS3036A Install special hazard systems	Supersedes and is equivalent to CPCPFS3036A Install special hazard systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3037 Install residential life safety sprinkler systems	CPCPFS3037A Install domestic and residential life safety sprinkler systems	Supersedes and is equivalent to CPCPFS3037A Install domestic and residential life safety sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPFS3038 Test and maintain fire hydrant and hose reel installations	CPCPFS3038A Test and maintain fire hydrant and hose reel installations	Supersedes and is equivalent to CPCPFS3038A Test and maintain fire hydrant and hose reel installations. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3040 Conduct basic functional testing of water-based fire-suppression systems	CPCPFS3040A Conduct basic functional testing of water-based fire-suppression systems	Supersedes and is equivalent to CPCPFS3040A Conduct basic functional testing of water-based fire-suppression systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3041 Inspect and test fire pumpsets	CPCPFS3041A Inspect and test fire pumpsets	Supersedes and is equivalent to CPCPFS3041A Inspect and test fire pumpsets. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3042 Conduct annual routine service of complex water-based fire-suppression systems	CPCPFS3042A Conduct annual functional testing of complex water-based fire-suppression systems	Supersedes and is equivalent to CPCPFS3042A Conduct annual functional testing of complex water-based fire-suppression systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3043 Conduct functional water flow testing	CPCPFS3043A Conduct functional water flow testing	Supersedes and is equivalent to CPCPFS3043A Conduct functional water flow testing. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3044 Install distribution and range pipes	CPCPFS3044A Install distribution and range pipes	Supersedes and is equivalent to CPCPFS3044A Install distribution and range pipes. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3045 Fit off sprinkler heads, controls and ancillary equipment	CPCPFS3045A Fit off sprinkler heads, controls and ancillary equipment	Supersedes and is equivalent to CPCPFS3045A Fit off sprinkler heads, controls and ancillary equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3046 Test the integrity of water-based fire protection systems using pressure	CPCPFS3046A Test the integrity of water-based fire protection systems using pressure	Supersedes and is equivalent to CPCPFS3046A Test the integrity of water-based fire protection systems using pressure. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPFS3047 Test and maintain automatic fire sprinklers	CPCPFS3047A Test and maintain automatic fire sprinklers	Supersedes and is equivalent to CPCPFS3047A Test and maintain automatic fire sprinklers. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3048 Install fixed fire pumpsets	CPCPFS3048A Install fixed fire pumpsets	Supersedes and is equivalent to CPCPFS3048A Install fixed fire pumpsets. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS3049 Conduct preventive maintenance on fixed fire pumpsets	CPCPFS3049A Conduct preventive maintenance on fixed fire pumpsets	Supersedes and is equivalent to CPCPFS3049A Conduct preventive maintenance on fixed fire pumpsets. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4021 Commission domestic and residential fire suppression sprinkler systems	CPCPFS4021A Commission domestic and residential fire suppression sprinkler systems	Supersedes and is equivalent to CPCPFS4021A Commission domestic and residential fire suppression sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4022 Commission and maintain special hazard fire suppression systems	CPCPFS4022A Commission and maintain special hazard fire suppression systems	Supersedes and is equivalent to CPCPFS4022A Commission and maintain special hazard fire suppression systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4023 Commission fire system pumpsets	CPCPFS4023A Commission fire system pumpsets	Supersedes and is equivalent to CPCPFS4023A Commission fire system pumpsets. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4024 Design residential fire sprinkler systems	CPCPFS4024A Design residential and domestic fire sprinkler systems	Supersedes and is equivalent to CPCPFS4024A Design residential and domestic fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4025 Commission fire alarm and detection system interface devices	CPCPFS4025A Commission fire alarm and detection system interface devices	Supersedes and is equivalent to CPCPFS4025A Commission fire alarm and detection system interface devices. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPFS4026 Commission firefighting appliances	CPCPFS4026A Commission firefighting appliances	Supersedes and is equivalent to CPCPFS4026A Commission firefighting appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS4027 Commission fire sprinkler systems	CPCPFS4027A Commission fire sprinkler systems	Supersedes and is equivalent to CPCPFS4027A Commission fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS5010 Design fire-compliant hydraulic services	CPCPFS5010A Design fire-compliant hydraulic services	Supersedes and is equivalent to CPCPFS5010A Design fire-compliant hydraulic services. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS5011 Design fire sprinkler systems	CPCPFS5011A Design fire sprinkler systems	Supersedes and is equivalent to CPCPFS5011A Design fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPFS5012 Design fire hydrant and hose reel systems	CPCPFS5012A Design fire hydrant and hose reel systems	Supersedes and is equivalent to CPCPFS5012A Design fire hydrant and hose reel systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3046 Install LPG systems in caravans, mobile homes and mobile workplaces	CPCPGS3046A Install LPG systems in caravans, mobile homes and mobile workplaces	Supersedes and is equivalent to CPCPGS3046A Install LPG systems in caravans, mobile homes and mobile workplaces. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3047 Install LPG systems in marine craft	CPCPGS3047A Install LPG systems in marine craft	Supersedes and is equivalent to CPCPGS3047A Install LPG systems in marine craft. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3048 Install gas pressure control equipment	CPCPGS3048A Install gas pressure control equipment	Supersedes and is equivalent to CPCPGS3048A Install gas pressure control equipment. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPGS3049 Install gas appliance flues	CPCPGS3049A Install Type A gas appliance flues	Supersedes and is equivalent to CPCPGS3049A Install Type A gas appliance flues. Updated to meet the Standards for Training Packages 2012.	E
	CPCPGS3050A Install Type B gas appliance flues	Unit of competency proposed for deletions, deemed superfluous by industry in development process.	
CPCPGS3051 Purge consumer piping	CPCPGS3051A Purge consumer piping	Supersedes and is equivalent to CPCPGS3051A Purge consumer piping. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3052 Maintain Type A gas appliances	CPCPGS3052A Maintain Type A gas appliances	Supersedes and is equivalent to CPCPGS3052A Maintain Type A gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3053 Disconnect and reconnect Type A gas appliances	CPCPGS3053A Disconnect and reconnect Type A gas appliances	Supersedes and is equivalent to CPCPGS3053A Disconnect and reconnect Type A gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3054 Calculate and install natural ventilation for Type A gas appliances	CPCPGS3054A Calculate and install natural ventilation for Type A gas appliances	Supersedes and is equivalent to CPCPGS3054A Calculate and install natural ventilation for Type A gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3055 Install gas sub-meters	CPCPGS3055A Install gas sub-meters	Supersedes and is equivalent to CPCPGS3055A Install gas sub-meters. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3056 Size and install consumer gas piping systems	CPCPGS3056A Install gas piping systems CPCPGS3057A Size consumer gas piping systems	Supersedes and is non-equivalent to CPCPGS3056A Install gas piping systems, and CPCPGS3057A Size consumer gas piping systems. Units merged to reduce duplication and updated to meet the Standards for Training Packages 2012.	N

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPGS3059 Install LPG storage of aggregate storage capacity up to 500 litres	CPCPGS3059A Install LPG storage of aggregate storage capacity up to 500 litres	Supersedes and is equivalent to CPCPGS3059A Install LPG storage of aggregate storage capacity up to 500 litres. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3060 Install LPG storage of aggregate storage capacity exceeding 500 litres and less than 8KL	CPCPGS3060A Install LPG storage of aggregate storage capacity exceeding 500 litres and less than 8KL	Supersedes and is equivalent to CPCPGS3060A Install LPG storage of aggregate storage capacity exceeding 500 litres and less than 8KL. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS3061 Install and commission Type A gas appliances	CPCPGS3061A Install and commission Type A gas appliances	Supersedes and is equivalent to CPCPGS3061A Install and commission Type A gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS4011 Design and size consumer gas installations	CPCPGS4011C Design and size consumer gas installation	Supersedes and is equivalent to CPCPGS4011C Design and size consumer gas installation. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS4022 Service Type A gas appliances	CPCPGS4022A Service Type A gas appliances	Supersedes and is equivalent to CPCPGS4022A Service Type A gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPGS4023 Install, commission and service Type B gas appliances	CPCPGS4023B Install, commission and service Type B gas appliances	Supersedes and is equivalent to CPCPGS4023B Install, commission and service Type B gas appliances. Updated to meet the Standards for Training Packages 2012.	E
CPCPIG2021 Design domestic urban irrigation systems	CPCPIG2021A Design domestic urban irrigation systems	Supersedes and is equivalent to CPCPIG2021A Design domestic urban irrigation systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPIG3021 Set out, install and commission irrigation systems	CPCPIG3021A Set out, install and commission irrigation systems	Supersedes and is equivalent to CPCPIG3021A Set out, install and commission irrigation systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPIG3022 Install and commission domestic irrigation pumps	CPCPIG3022A Install and commission domestic irrigation pumps	Supersedes and is equivalent to CPCPIG3022A Install and commission domestic irrigation pumps. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS2021 Assemble mechanical services components	CPCPMS2021A Assemble mechanical services components	Supersedes and is equivalent to CPCPMS2021A Assemble mechanical services components. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3031 Fabricate and install steel pressure piping	CPCPMS3031A Fabricate and install steel pressure piping	Supersedes and is equivalent to CPCPMS3031A Fabricate and install steel pressure piping. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3032 Select and fit insulation and sheathing	CPCPMS3032A Select and fit insulation and sheathing	Supersedes and is equivalent to CPCPMS3032A Select and fit insulation and sheathing. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3033 Install small bore heating systems	CPCPMS3033A Install small bore heating system	Supersedes and is equivalent to CPCPMS3033A Install small bore heating systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3034 Install and test medical gas pipeline systems	CPCPMS3034A Install medical gas pipeline systems	Supersedes and is equivalent to CPCPMS3034A Install medical gas pipeline systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3035 Install and test ducting systems	CPCPMS3035A Install and test ducting systems	Supersedes and is equivalent to CPCPMS3035A Install and test ducting systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3036 Install air handling units	CPCPMS3036A Install air handling units	Supersedes and is equivalent to CPCPMS3036A Install air handling units. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPMS3037 Install and commission a single head split system air conditioning	CPCPMS3037A Install and test split system air conditioning	Supersedes and is equivalent to CPCPMS3037A Install and test split system air conditioning. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3038 Install air conditioning control equipment	CPCPMS3038A Install air conditioning control equipment	Supersedes and is equivalent to CPCPMS3038A Install air conditioning control equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3039 Maintain mechanical services equipment	CPCPMS3039A Maintain mechanical services equipment	Supersedes and is equivalent to CPCPMS3039A Maintain mechanical services equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3040 Install and commission evaporative air cooling systems	CPCPMS3040A Install and maintain evaporative air cooling systems	Supersedes and is equivalent to CPCPMS3040A Install and maintain evaporative air cooling systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS3041 Install domestic solid fuel burning appliances	CPCPMS3041A Install domestic solid fuel burning appliances	Supersedes and is not equivalent to CPCPMS3041A Install domestic solid fuel burning appliances. Updated to meet the Standards for Training Packages 2012.	N
CPCPMS4011 Design, size and lay out heating and cooling systems	CPCPMS4011B Design, size and lay out heating and cooling systems	Supersedes and is equivalent to CPCPMS4011B Design, size and lay out heating and cooling systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS4022 Commission air and water systems	CPCPMS4022A Commission air and water systems	Supersedes and is equivalent to CPCPMS4022A Commission air and water systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS4023 Design compressed air systems	CPCPMS4023A Design compressed air systems	Supersedes and is equivalent to CPCPMS4023A Design compressed air systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPMS5010 Design steam generation and distribution systems	CPCPMS5010A Design steam generation and distribution systems	Supersedes and is equivalent to CPCPMS5010A Design steam generation and distribution systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS5011 Design air conditioning and ventilation systems	CPCPMS5011A Design air conditioning and ventilation systems	Supersedes and is equivalent to CPCPMS5011A Design air conditioning and ventilation systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS5012 Design sound attenuated hydraulic services	CPCPMS5012A Design sound attenuated hydraulic services	Supersedes and is equivalent to CPCPMS5012A Design sound attenuated hydraulic services. Updated to meet the Standards for Training Packages 2012.	E
CPCPMS5013 Design hydronic heating and cooling systems	CPCPMS5013A Design hydronic heating and cooling systems	Supersedes and is equivalent to CPCPMS5013A Design hydronic heating and cooling systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5000 Design gas bulk storage systems	CPCPPS5000B Design gas bulk storage systems	Supersedes and is equivalent to CPCPPS5000B Design gas bulk storage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5001 Design industrial gas systems	CPCPPS5001B Design industrial gas systems	Supersedes and is equivalent to CPCPPS5001B Design industrial gas systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5002 Design gas reticulation systems	CPCPPS5002B Design gas reticulation systems	Supersedes and is equivalent to CPCPPS5002B Design gas reticulation systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5014 Locate and maintain piping systems	CPCPPS5014A Locate and maintain piping systems	Supersedes and is equivalent to CPCPPS5014A Locate and maintain piping systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPPS5015 Inspect plumbing and drainage systems	CPCPPS5015B Inspect plumbing and drainage systems	Supersedes and is equivalent to CPCPPS5015B Inspect plumbing and drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5023 Design solar water heating systems	CPCPPS5023A Design solar water heating systems	Supersedes and is equivalent to CPCPPS5023A Design solar water heating systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5024 Conduct a water audit and identify water-saving initiatives	CPCPPS5024A Conduct a water audit and identify water-saving initiatives	Supersedes and is equivalent to CPCPPS5024A Conduct a water audit and identify water-saving initiatives. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5025 Design grey water re-use systems	CPCPPS5025A Design grey water re-use systems	Supersedes and is equivalent to CPCPPS5025A Design grey water re-use systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5026 Design rainwater collection, storage, distribution and re-use systems	CPCPPS5026A Design rainwater collection, storage, distribution and re-use systems	Supersedes and is equivalent to CPCPPS5026A Design rainwater collection, storage, distribution and re-use systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5027 Design irrigation systems	CPCPPS5027A Design irrigation systems	Supersedes and is equivalent to CPCPPS5027A Design irrigation systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5028 Design trade waste pre-treatment systems	CPCPPS5028A Design trade waste pre-treatment systems	Supersedes and is equivalent to CPCPPS5028A Design trade waste pre-treatment systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5030 Design pump systems	CPCPPS5030A Design pump systems	Supersedes and is equivalent to CPCPPS5030A Design pump systems. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPPS5032 Design siphonic stormwater drainage systems	CPCPPS5032A Design siphonic stormwater drainage systems	Supersedes and is equivalent to CPCPPS5032A Design siphonic stormwater drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPPS5033 Design vacuum drainage systems	CPCPPS5033A Design vacuum sewerage systems	Supersedes and is equivalent to CPCPPS5033A Design vacuum sewerage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF2022 Select and install roof sheeting and wall cladding	CPCPRF2022A Select and install roof sheeting and wall cladding	Supersedes and is equivalent to CPCPRF2022A Select and install roof sheeting and wall cladding. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF2023 Collect and store roof water	CPCPRF2023A Collect and store roof water	Supersedes and is equivalent to CPCPRF2023A Collect and store roof water. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF2024 Fabricate roof coverings for curved structures	CPCPRF2024A Fabricate roof coverings for curved structures	Supersedes and is equivalent to CPCPRF2024A Fabricate roof coverings for curved structures. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF3021 Receive roofing materials	CPCPRF3021A Receive roofing materials	Supersedes and is equivalent to CPCPRF3021A Receive roofing materials. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF3022 Fabricate and install roof drainage systems	CPCPRF3022A Fabricate and install roof drainage components	Supersedes and is equivalent to CPCPRF3022A Fabricate and install roof drainage components. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF3023 Fabricate and install external flashings	CPCPRF3023A Fabricate and install external flashings	Supersedes and is equivalent to CPCPRF3023A Fabricate and install external flashings. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPRF3024 Install roof components	CPCPRF3024A Install roof components	Supersedes and is equivalent to CPCPRF3024A Install roof components. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF3025 Install roof coverings to curved roof structures	CPCPRF3025A Install roof coverings to curved roof structures	Supersedes and is equivalent to CPCPRF3025A Install roof coverings to curved roof structures. Updated to meet the Standards for Training Packages 2012.	E
CPCPRF3026 Install roof sheets, wall cladding and complex flashings	CPCPRF3026A Install composite roof systems	Supersedes and is non-equivalent to CPCPRF3026A Install composite roof systems. Updated to meet the Standards for Training Packages 2012.	N
CPCPRF3027 Select and install a heritage roof system		Newly created unit.	
CPCPRF4011 Design and size roof drainage systems	CPCPRF4011B Design and size roof drainage systems	Supersedes and is equivalent to CPCPRF4011B Design and size roof drainage systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPSN3011 Plan the layout of a residential sanitary plumbing system and fabricate and install sanitary stacks	CPCPSN3011B Plan layout of a residential sanitary plumbing system CPCPSN3023A Fabricate and install sanitary stacks	Supersedes and is non-equivalent to CPCPSN3011B Plan layout of a residential sanitary plumbing system, and CPCPSN3023A Fabricate and install sanitary stacks. Units merged to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPSN3022 Install discharge pipes	CPCPSN3022A Install discharge pipes	Supersedes and is equivalent to CPCPSN3022A Install discharge pipes. Updated to meet the Standards for Training Packages 2012.	E
CPCPSN3025 Install pre-treatment facilities	CPCPSN3025A Install pre-treatment facilities	Supersedes and is equivalent to CPCPSN3025A Install pre-treatment facilities. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPSN3026 Install sewerage pumpsets	CPCPSN3026A Install sewerage pumpsets	Supersedes and is equivalent to CPCPSN3026A Install sewerage pumpsets. Updated to meet the Standards for Training Packages 2012.	E
CPCPSN4011 Design and size sanitary plumbing systems	CPCPSN4011B Design and size sanitary plumbing systems	Supersedes and is equivalent to CPCPSN4011B Design and size sanitary plumbing systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3020 Connect and install storage tanks to a domestic water supply	CPCPWT3020A Connect and install storage tanks to a domestic water supply	Supersedes and is equivalent to CPCPWT3020A Connect and install storage tanks to a domestic water supply. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3021 Set out and install water services	CPCPWT3021A Set out and install water services	Supersedes and is equivalent to CPCPWT3021A Set out and install water services. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3022 Install and commission water heating systems and adjust controls and devices	CPCPWT3022A Install and adjust water service controls and devices CPCPWT3023A Install and commission water heating systems	Supersedes and is non-equivalent to CPCPWT3022A Install and adjust water service controls and devices, and CPCPWT3023A Install and commission water heating systems. Units merged into one to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPWT3024 Install and maintain domestic water treatment equipment	CPCPWT3024A Install and maintain domestic water treatment equipment	Supersedes and is equivalent to CPCPWT3024A Install and maintain domestic water treatment equipment. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3025 Install water pumpsets	CPCPWT3025A Install water pumpsets	Supersedes and is equivalent to CPCPWT3025A Install water pumpsets. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPWT3026 Install and fit off sanitary fixtures, water services and adjust water service controls	CPCPSN3024A Install and fit off sanitary fixtures CPCPWT3026A Fit off and commission heated and cold water services	Supersedes and is non-equivalent to CPCPSN3024A Install and fit off sanitary fixtures, and CPCPWT3026A Fit off and commission heated and cold water services. Units merged into one to reduce duplication and updated to meet the Standards for Training Packages 2012.	N
CPCPWT3027 Install backflow prevention devices	CPCPWT3027A Connect irrigation systems from drinking water supply	Supersedes and is equivalent to CPCPWT3027A Connect irrigation systems from drinking water supply. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3028 Install property service	CPCPWT3028A Install water service	Supersedes and is equivalent to CPCPWT3028A Install water service. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3029 Install water pipe systems	CPCPWT3029A Install water pipe systems	Supersedes and is equivalent to CPCPWT3029A Install water pipe systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT3030 Install home fire sprinkler systems	CPCPWT3030A Install home fire sprinkler systems	Supersedes and is equivalent to CPCPWT3030A Install home fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT4011 Design and size heated and cold-water services and systems	CPCPWT4011B Design and size heated and cold-water services and systems	Supersedes and is equivalent to CPCPWT4011B Design and size heated and cold-water services and systems. Updated to meet the Standards for Training Packages 2012.	E
CPCPWT4022 Commission and maintain backflow prevention devices	CPCPWT4022A Commission and maintain backflow prevention devices	Supersedes and is equivalent to CPCPWT4022A Commission and maintain backflow prevention devices. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
CPCPWT4023 Commission and maintain hot and heated water temperature control devices	CPCPWT4023A Commission and maintain hot and heated water temperature control devices	Supersedes and is equivalent to CPCWPT4023A Commission and maintain hot and heated water temperature control devices. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5001 Define scope and hazard level of fire systems design projects	CPCSFS5001A Define scope and hazard level of fire systems design projects	Supersedes and is equivalent to CPCSFS5001A Define scope and hazard level of fire systems design projects. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5002 Research and interpret detailed fire systems design project requirements	CPCSFS5002A Research and interpret detailed fire systems design project requirements	Supersedes and is equivalent to CPCSFS5002A Research and interpret detailed fire systems design project requirements. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5003 Develop plans and methodology for fire systems design projects	CPCSFS5003A Develop plans and methodology for fire systems design projects	Supersedes and is equivalent to CPCSFS5003A Develop plans and methodology for fire systems design projects. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5005 Research and evaluate fire system technologies and components	CPCSFS5005A Research and evaluate fire system technologies and components	Supersedes and is equivalent to CPCSFS5005A Research and evaluate fire system technologies and components. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5006 Create detailed designs for fire sprinkler systems	CPCSFS5006A Create detailed designs for fire sprinkler systems	Supersedes and is equivalent to CPCSFS5006A Create detailed designs for fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5007 Create detailed designs for hydrant and hose reel systems	CPCSFS5007A Create detailed designs for hydrant and hose reel systems	Supersedes and is equivalent to CPCSFS5007A Create detailed designs for hydrant and hose reel systems. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5008 Create detailed designs for fire detection and warning systems	CPCSFS5008A Create detailed designs for fire detection and warning systems	Supersedes and is equivalent to CPCSFS5008A Create detailed designs for fire detection and warning system. Updated to meet the Standards for Training Packages 2012.	E

Unit mapping information

CPC Construction, Plumbing and Services Training Package	CPC08 Construction, Plumbing and Services Training Package	Comments	E/N
CPCSFS5009 Create detailed designs for fire systems' water supplies	CPCSFS5009A Create detailed designs for fire systems' water supplies	Supersedes and is equivalent to CPCSFS5009A Create detailed designs for fire systems' water supplies. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5010 Provide documentation and support for fabrication of fire sprinkler systems	CPCSFS5010A Provide documentation and support for fabrication of fire sprinkler systems	Supersedes and is equivalent to CPCSFS5010A Provide documentation and support for fabrication of fire sprinkler systems. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5011 Provide design documentation and review and support fire system installation processes	CPCSFS5011A Provide design documentation and review and support fire system installation processes	Supersedes and is equivalent to CPCSFS5011A Provide design documentation and review and support fire system installation processes. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5013 Support commissioning processes and finalise fire systems design projects	CPCSFS5013A Support commissioning processes and finalise fire systems design projects	Supersedes and is equivalent to CPCSFS5013A Support commissioning processes and finalise fire systems design projects. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5014 Conduct annual fire systems inspections	CPCSFS5014A Conduct annual fire systems certification inspections	Supersedes and is equivalent to CPCSFS5014A Conduct annual fire systems certification inspections. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5015 Prepare documentation for annual fire systems inspections	CPCSFS5015A Assess documentation for annual fire systems certification inspections	Supersedes and is equivalent to CPCSFS5015A Assess documentation for annual fire systems certification inspections. Updated to meet the Standards for Training Packages 2012.	E
CPCSFS5017 Create detailed designs for foam suppression systems		Newly created unit.	
	CPCSFS8001 Define scope of and initiate special hazard fire systems design projects	Unit of competency proposed for deletions, deemed superfluous by industry in development process.	

Unit mapping information			
CPC Construction, Plumbing and Services Training Package	**CPC08 Construction, Plumbing and Services Training Package**	**Comments**	**E/N**
	CPCSFS8002 Analyse, design and evaluate complex special hazard fire systems	Unit of competency proposed for deletions, deemed superfluous by industry in development process.	
	CPCSFS8003 Develop and submit tenders for fire systems design solutions	Unit of competency proposed for deletions, deemed superfluous by industry in development process.	

Appendix A: Construction IRC consultation methodology

The Construction, Plumbing and Services Industry Reference Committee (IRC) members advised that each uses a multitude of different communication strategies and methodologies to engage with their members and stakeholders to provide feedback on matters relating to Training Package development.

Each industry occupation and qualification present with a unique set of conditions that involve deliberation and discussion about how best to engage in order to maximise industry feedback and response.

The IRC members work closely with countless stakeholders from all levels of the Australian construction industry, which they represent very broadly, to achieve a workable compromise in all qualifications. The majority of IRC members represent national associations who each have state and territory networks and formal training development committee structures that work to fully represent sector requirements. The networks consist of industry members; Registered Training Organisations (RTOs), builders, contractors, manufacturers, suppliers and group training schemes that provide advice on specific issues in relation to the CPC Construction, Plumbing and Services Training Package. These organisations also engage industry through regional membership, professional development, technical and policy committees which report to National Service Committees and National Policy Congress. One organisation has over 250 industry representatives on its committees at any one time.

To provide cohesion between the IRC and Technical Advisory Groups (TAGs), the IRC appoints a member of its committee to Chair each TAG and that Chair reports back to the IRC meetings by way of project briefs and verbal reports. The TAG members are chosen in accordance with terms of reference that biases employer representation and subject matter experts. Members of TAGs are recommended and selected because of their expertise in specific trades and their connections with industry. No more than two RTOs are recommended on each TAG.

IRC members employ a range of strategies to engage their networks, including engagement with:

- Industry strategy groups
- Major employers
- Industry associations
- Various industry boards
- Commercial construction site personnel:
    - Site managers
    - Tradespersons
    - Foreman
    - Safety managers
    - Apprentices
- RTO-based personnel
- Schools
    - Students
    - Apprentices
- Regulators
- Group schemes.

Forms of engagement to provide input into construction projects include face-to-face meetings, telephone calls, emails, formal meetings, conferences, professional development seminars, website articles, LinkedIn posts, online meetings and forums.

Construction, Plumbing and Services IRC members encourage their networks to participate in industry surveys and online sessions and hold industry forums.

Contentious issues are discussed in depth at IRC meetings and, where consensus is not reached, a vote is held to determine the way forward. It is rare that consensus is not found.

IRC Member		**Membership**
Adam Cox	Fernbrooke Homes	Adam Cox is a bespoke builder who renovates, extends or builds homes. Adam works predominately in and around Brisbane and Ipswich. **Awards** HIA-CSR 2015 QLD Business Partner of the Year HIA-CSR 2015 National Finalist Business Partner of the Year HIA Greensmart Professional with 20 years of experience HIA Women in Construction Finalist 2015
Alan Waldron Deputy Chair	Construction Consultant	Retired Training Manager of Hutchinson Builders
Andrew Marshall	Marshall & Brougham Constructions P/L	The executive team of Marshall & Brougham is Johan Marshall OAM FAIB, Andrew Marshall AM FAIB, FAICD, James Marshall and Daryl Crebbin. It is a privately owned company with over 70 years of experience in delivering construction solutions for commercial, residential, restoration, heritage and retail constructions.
Glenn Menzies	Communication, Electrical and Plumbing Union	The Plumbers Union is a trade union committed to protecting workers' rights and entitlements and has been registered since 1912.
Greg Smith	National Fire Industry Association	The National Fire Industry Association (NFIA) is an Australia-wide community of Fire Protection contractors and their people, suppliers, friends and stakeholders representing a wide and varied membership.
Jocelyn Martin	Housing Industry Association	HIA represents over 40,000 builders, contractors, manufacturers and suppliers.
Ken Gardner	Master Plumbers	Master Plumbers and Mechanical Services Association of Australia (Master Plumbers) was established in 1891 and is the industry's

		representative and voice on safety, standards and training.
Lindsay Le Compte	Australian Industry Group	Ai Group is a peak employer organisation representing a range of industry sectors.
Lynda Douglas	Department of Defence	
Jennifer Lawrence	Master Builders	Master Builders Australia is structured as a federation comprising of 8 State & Territory Associations, collectively comprising over 30,000 members.
Paul Baxter	Australian Metal Workers Union	The Australian Manufacturing Workers' Union represents workers in all areas of manufacturing around Australia.
Robert Berryman	Construction Training Fund WA	The Construction Training Fund (CTF) is a statutory authority that assists Western Australia's building and construction industry to meet its demands for skilled workers. The Board also carries out the role of a Construction Training Council, which works closely with industry stakeholders and provides advice to the Government and State Training Board to ensure that training meets the needs of one of Western Australia's biggest and most diverse industries
Shane Roulstone	Australian Workers' Union	The Australian Workers' Union is the nation's oldest and largest blue-collar trade union representing over 100,000 working men and women and their families.
Stuart Maxwell (Chair)	Construction, Forestry, Maritime, Mining and Energy Union	The Construction Forestry Maritime Mining and Energy Union is Australia's main trade union in building and construction.
Chris Munday	Master Painters	Master Painters Australia is the peak industry body and is a not for profit association. It protects both consumers and members, setting standards for business practice and delivering training to upskill members and to ensure quality workmanship.
Tony Roberts	Association of Wall & Ceiling Lining Industries of NSW	The Association of Wall and Ceiling Industries Australian and New Zealand is the peak representative body for contractors, suppliers

		and manufacturers throughout the wall and ceiling industries.
Yvonne Webb	Industry Skills Advisory Council NT	The Industry Skills Advisory Council NT is an independent, not for profit organisation that provides advice to and gathers feedback from Northern Territory businesses on skills shortages. Its purpose is to increase industry skills capacity and capability across the Northern Territory.

Appendix B: Industry forums 2018

Monday 26 Feb 18 Acacia Ridge

Attendees:

1. Jenni Pountney – DNRM (Dept Natural Resources and Mines)
2. Paul Beaumont – GTRC (Gas Technical Regulators Committee)
3. Andy Burn – FIT Trainer
4. Nathan Morgan – TSTCA (The Services Trades College Australia) Trainer
5. Andrew McPhan – TAFE QLD Trainer, NPSTAG (National Plumbing and Services Training Advisory Group)
6. Ernie Kretschmer – MPAQ
7. Justin Maxwell – PPTEU (Plumbing and Pipe Trade Employees Union)
8. Michael Wiech – PPTEU
9. Paul Baxter – Construction IRC
10. Guy Valentine – DESBT (Dept of Employment, Small Business and Training)
11. Stephen Brown - TAFE Qld Trainer

Qualification	**Comments**
Certificate III in Plumbing	Description of qualification needs to be clearer, e.g. Is the occupation title Gasfitter, Domestic Gasfitter or Plumber and Gasfitter? Oxywelding – need to consider what works in regional areas and maintenance work What is the need for summative?
Certificate III in Fire Protection	Units of competency content needs to be future proofed and brought up to date but still require skill sets that enable them to maintain and repair older properties. Core and elective units cover K&S for a Certificate III in Fire Protection but could add units for endorsements. Question relating to FP Systems Technician or Sprinkler Systems Installer qualification title. Is it one or two quals or just a title for completing the 39 units? Should add to qual 'Design domestic and residential fire systems' also. 'Commission domestic and residential fire systems' to the electives to suit Qld Licence endorsements.
General	What happens to amalgamated or deleted units, where do they go? Include mobile scaffold.

Monday 26 Feb 18 Lismore

Attendees:

1. Rob Gilman – NAPSTAG (National Plumbing and Services Training Advisory Group)
2. Scott Bullow – TAFE NSW Trainer
3. Damon McCarthy – Training Services NSW Rachel Keed – Training Services NSW

Qualification	Comments
Certificate III in Roof Plumbing	How is the training package managed - regarding not all apprentices do gas fitting? Employers want a package that is sufficient to cover scope of works in all competencies in regional areas.
Certificate III in Gas Fitting	Why does gas not have a gas job pathway?
General	It is important that apprentices learn the types of tools, their uses and maintenance. Would like to see hand and power tools unit stand alone. Will look at qualification structures and send feedback.

Tuesday 27 Feb 2018 – Web Conference

Attendees:

1. Honora Gee - TAFE
2. Chris Pacey – TAFE Mt Druitt
3. Mark Robertson – Plumbing TAG member
4. Darrel Vecchio – TAFE and gas association
5. Michael Wilson – Central Queensland RTO
6. David Mittmansgruber - AHSCA

Qualification	**Comments**
Certificate II in Drainage	Include MIG and TIG welding into Weld using metal manual arc welding equipment.
Certificate III in Plumbing	Concern about the impact of transitioned units on end users.
Certificate III in Roof Plumbing	Maintain PCM3023 Fabricate and install non-ferrous pressure piping and remove oxy welding. Weld using oxy-acetylene equipment is not an elective.
Certificate III in Gas Fitting	Gas fitters do not perform gas tungsten arc welding very much. Should include Test and Tag as a pre-requisite to both UEENEEP units.
Certificate IV in Plumbing and Services	Should include UEENEEP014A and UEENEEP012A Honora Gee: "Below are my comments on the attached Diploma course draft – based on student feedback and discussions with AHSCA members at meetings. Although it is a suitable elective for plumbers, BSBSMB401 Establish legal and risk management requirements of small business is NOT a suitable core unit for hydraulic services consultants. It should be removed from the list of core units and added to the list of elective units. According to the above suggestion, the following changes would apply: • 14 units of competency made up of: o 8 core units o 6 elective units A minimum of 4 elective units must be chosen from elective units listed below. CPCPRF4011B Design and size roof drainage systems CPCPCM4013A Produce 2-D architectural drawings using CAD software CPCPCM4014A Prepare simple sketches and drawings CPCPFS4024A Design residential and domestic fire sprinkler systems It allows Hydraulic Services Consultants to complete the above electives as part of their Certificate IV course."

	David Mitmannsgruber: "Another item I would like to raise are the continuous annual updates of the Certificate IV and Diploma course. As I understand it, the Diploma is being run as a 3 year course but being updated every 12 months. This means students have to continuously re-enrol and carry over previously completed units. Because of these continuous updates and course changes students take about 5 – 7 years to complete the 3 year course. While course material needs to be current and up to date, Australian Standards are only updated every 10 years (if that) and the BCA only every 3 years. It seems odd that the plumbing Diploma course is being updated every year when there are only minor industry changes (which can be updated by the unit teacher). Can you please comment on this as it is quite an issue for students and employers if young designers cannot achieve their necessary qualifications in a reasonable time frame? Sizing and design of roof drainage is a very big part of a hydraulic consultant's work and this should definitely be a core unit rather than an elective. Undersized gutter systems are unfortunately a common issue in QLD (not too sure about other states) and as an industry we should educate plumbers and designers as much as possible in this field. I would suggest to keep the ratio of 9 core units and 5 electives but swap the BSBSMB401 Establish legal and risk management requirements of small business with CPCPRF4011B Design and size roof drainage systems."
Diploma of Hydraulic Services	"Below are my comments on the attached Diploma course draft based on student feedback and discussions with AHSCA members at meetings. CPC5XX18 Diploma of Hydraulic Services. The word "Design' has been removed from course title. I don't see a problem with this, but David Mittmansgruber may like to comment about this (from an industry perspective). Student feedback indicates that the following 2 gas units should be electives (not CORE) units. This view has also been reinforced by our casual gas teacher Darrel Vecchio (who owns RTO Brizmatrix Pty Ltd and is also President of Qld Gas Association. This feedback has been reinforced by members at AHSCA meetings that I have attended. Therefore, the following 2 units should become ELECTIVE units: • CPCPPS5001B Design industrial gas systems • CPCPPS5000B Design gas bulk storage systems Following on from above, the number of **core units** will be **15**. (It is terrific to see that the pre-entry Certificate IV units have been removed from the list of Diploma core units!) The current Diploma course has **3 electives**. I do not think this should change. I also think that there should be a limit of 1 elective taken from another training package.

	If the proposed Diploma course is equivalent to the current CPC50612 Diploma of Hydraulic Services, students will not be expected to participate in extensive transition arrangements (which from a student (i.e. end user) perspective will be most welcome!)" David Mitmannsgruber: "I have completed the on-line survey on the Certificate IV and Diploma course. For the Diploma I agree with Honora that the industrial Gas and gas bulk storage should be offered as an elective rather than core unit as this is quite a specialised field. I also agree that only a maximum of 1 unit from another course should be allowed as an elective for the Diploma (i.e. structural)."
General	Darrel Vecchio – wants to get involved with Certificate III in Gas Fitting descriptors. Short period between unit structure release and consultation was asked.

Wednesday 28 Feb 18 Bracken Ridge

Attendees:

1. Michael Waterford – Bluescope Nicole Aleckson – ATTC
2. Ben Radley – Fire Technology Systems Design
3. Graham MacKrill – AMCA
4. Peter Harvey – TAFE
5. Neil Creek – Aust Steel Institute Martin Moore – KASE
6. Steve Cusak – KASE
7. Chris Wyborn _industry association - FPAA
8. Mark Robertson – Plumbing and Services TAG

Qualification	Comments
Certificate III in Plumbing	Include Mechanical Services to the occupational titles. Work effectively in the plumbing services sector – expand to include emerging technologies – advances in plumbing technologies. Like that some units are being clustered (merged) and that pre-requisite units are being added to cores. *(Imported units not listed)* Need to take care with this for contextualisation. *(Future trends)* Solar roof tiles/sheets. Job title for MS medical gas not reflected in the description.
Certificate III in Gas Fitting	Job title for MS medical gas not reflected in the description.
Diploma of Hydraulic Services	Remove the fire services units from the Hydraulic Services Design qualification and add to the Diploma of Fire Systems Design. Ben Radley – employer – fire technology Graham Mackrill – AMSA (air conditioning and mechanical contractors association) Key points discussed: • Qualification needs to reflect/ or be aware of the compliance requirements of the National Construction Code.

	• Management of data needs to be embedded to enable graduates (my words) to understand the need to produce outcomes that is meaningful – that is meets regulation, but also time and cost effective. – the conversation was around an understanding of the various "groups" that may be involved in the construction eg. air conditioners working together with fire sprinkler fitters. A lot of the work is undertaken off site and then assembled on site (off site construction) and there is a need to understand the environment of working with other trades on site. • Currently modelling work is undertaken by designers and should be included in the qualification – eg. REVIT 3D, however the practical application on a work site needs to be considered as a key outcome. • The suggestion was to remove the reference to fire systems design and create or move the Unit of Competency to the Fire Systems Design qualification – the reason is that there are now so many "codes" that need to be considered by designers. And this qualification looks like it is trying to cover all of them and the outcome is poor quality training, etc.
	The key is, can the qualification enable graduates to put into practice the "regulations"? Need to be aware that QBBC uses this qual for licence purposes (may not have caught this that well). The "code and standards" should be referenced where possible in the knowledge evidence. Modelling build ability to deliver outcomes. Building Ministers Forum – non-conforming and non-compliant products (result of Grenville etc) Graham advised he was privy to the report by Professor Peter Shergold and Bronwyn Weir – amongst the recommendations that could and would impact on the Diploma are the following: • Compliance with the National Construction Design code (at least that is what I understood – Graham was advising that 'design' graduates need to understand this) • Mandatory training and proof development for designers (in issuing the qualification it will be important to ensure the person is competent) • Certification – of design and build. Ben's comment was that it is important to have well trained people - concern is that there is the use of a minimal qual at the moment and installation is often therefore non-compliant. • Design and installation are critical in ensuring effective systems are in place = construction phase and then followed by maintenance etc. It was raised that designers and installers could be held liable if they have not been compliant with the National Construction Design code. SUGGESTED OPTIONS: • Remove the fire services units from the Hydraulic Services Design Qual and add to the Fire Services System Design Diploma. • CPCSFS5007A Create detailed designs for hydrant and hose reel systems - This unit is very broad and may needs review and updating.

	• CPCPFS Design fire sprinkler systems – could be moved to fire CPCPCM4013A Produce 2-D architectural drawings using CAD software – needs to include 3-D and consider other contemporary eg. REVIT and its application in the 'real world'. • CPCPCM4014A Prepare simple sketches and drawings – needs to be contextualised and should, if not already, be used in Fire Systems Design.
General	How is flexibility incorporated into a training package when a majority of the workers are CBD based and not regional?
General comments	Jen Mason: "Yesterday, the VBA met with a large national employer of plumbers. One of the issues they have concerns about with the current qualification is that there is no unit on customer service for plumbers (they also hire other tradies and have the same issue with other quals). They spend quite a bit of time with their staff on soft skills. Their staff mostly service businesses and the soft skills their staff display is critical to the success of their business. They weren't aware that the qualifications are being updated, nor werethey aware of the consultation sessions. I sent them a link through for registering into the sessions. I thought I'd flag this for you as after they left, those of us who attended the meeting all agreed that this relevant feedback generally for CPC qualifications and that all plumbing practitioners at some point (whether servicing business or domestic clients) need soft skills."

Thursday 1 March 18 – Web Forum

Attendees:

1. Blair Layt – TAFE Qld Alexandra Headland Danny Platt – TAFE Qld
2. Geoffrey Britton – TAFE Qld / NPSTAG Des
3. Mark Robertson - PS TAG

Qualification	Comments
Certificate III in Plumbing	Consider qual structure as QLD might not recognise licensed plumbers from interstate. What is the proposed amalgamation of MS units? Maintenance is a large area of work for plumbers and units should reflect this.
Diploma of Hydraulic Services	Send diploma proposed structure for further comment.
General	Electives do not allow for plumbers to experience overall skills. Is there any consideration for a Certificate II for school-based training? Worthwhile considering. Are transitioned units inclusive of environmental and sustainability for the future? DP would like to be involved with wording of information of assessments conducted in workplaces or simulated workplaces to allow for a range of skills.

Monday 5 March 18 – MPA NSW, Auburn, Sydney 07.30-09.30

Attendees:

1. Wesley James – Trades College Australia / training Manager
2. Anthony Bailhouse – NPSTAG TAFE
3. Derry Thomas – TAFE NSW, Project Officer
4. Rodney Jackson – TAFE NSW, Facility Manager
5. Robyn Addie – TAFE NSW, Plumbing Project Manager
6. Darin Evans – Australian Fire Association, CEO
7. Rod Rolfe – Wormald Australia, National Learning
8. Michael Bergin – MRCAA, Technical Manager
9. Brad Ryan – Bluescope, Building and construction
10. Colin Dunn – Network PL, Manager
11. Adam Diffin – Training n Trade, Trainer Assessor
12. Fayez Zreika – Trades College Australia, Trainer and Assessor
13. Mark Scorelli – Trades College Australia, Trainer and Assessor
14. Paul Naylor – MPA NSW

Qualification	Comments
Certificate III in Roof Plumbing	Some units will become obsolete eg. welding, plumbers will still need to repair and maintain older products, will the units cover the relevant industry skills and knowledge required to carry out this work? Growth in non-structural roofing, new products and technology as well as knowledge of insulation and condensation.
General	Flexible training package structure to allow for plumbers in regional areas Getting rid of Certificate II in Roof Plumbing, leaves a pathway gap for school students to progress into plumbing. Other states have a pathway program. Will it be replaced? This forum is for a plumbing training package, where are the plumbers? 50 years ago, training packages did not sufficiently cover training and they are still the same. If we are future proofing training packages for the years ahead, the writing of the units of competency should reflect that. How long before the package is released?

Tuesday 6 March 18 – Brunswick, Melbourne

Attendees:

1. Warren James – RIMT, Program Manager
2. Laura Steedman – AMCA, Executive Manager
3. Phillip Langley – Bendigo TAFE, Teacher
4. Gary Cook – MPA NSW, Board
5. Wayne Diffrey – MPA, Trainer
6. Steven Barry – MPA, Trainer
7. Brendan Gould, MPA, General Manager
8. Geoff Dixon – Melbourne Polytechnic, Lead Trainer
9. Gary Bath – MPAV, Technical Officer
10. Jim Box – Bendigo TAFE, Education Manager
11. Chris Carter – Blue Scope, Technical Manager
12. Kerry Beu – Frontline, Designer
13. Steve Quirk – Frontline, Development
14. Lynda Green – AATIS, Training Product Content Officer
15. Kevin Shinners – MPMSAA, Director
16. Peter Daly – MPMSAA
17. Paul Carey – MPMSAA, Teacher
18. Lucas Blyth – Fire Industry Training, CEO
19. Richard McEnroe – PICAC, Consultant
20. Sam Nicolas – Gordon TAFE, Teacher Derek Bonar – Box Hill Institute, Teacher
21. Greg Smith – NFIA, Executive Officer
22. Selvin Hikuroa – Chisolm, Teacher
23. Andy Ulbrick – Chisholm, Senior Educator
24. Stephen Hammond – Chisholm, Senior Educator
25. Robert Funston – Chisholm, Senior Educator
26. Darren Hudson – Box Hill TAFE, Plumber
27. Garry Wakes – Master Plumbers, Trainer
28. Ken Gardner – MPMSAA, CEO/Chair Plumbing and Services TAG
29. Carmel Coate – NFIA / Plumbing and Services TAG
30. Shayne La Combre – PICAC, CEO / Plumbing and Services TAG
31. Glenn Menzies – PPTEU, Organiser / Plumbing and Services TAG
32. Colin Walker – Defence, Employment / Plumbing and Services TAG

Qualification	Comments
Certificate III in Plumbing	Who is making decisions about amalgamating units? ('crap'). Where is written rationale for how amalgamations determined? A 'number' of units determined, then decided what could be combined to reduce number of units and meet that number.
Certificate III in Roof Plumbing	The training package needs to be developed based on a job outcome, it's up to the RTO to structure the delivery. There is no hand and power tool unit, how will that skill be learned prior to doing a task? Bluescope list of points requested to be received in writing.
Certificate III in Gas Fitting	Details are in unit content – welding poly.
General	Is sustainability going to be a separate unit? – Will be incorporated into each unit. Will the package still allow for imported units? Note that there is an importance for Certificate IV and Diploma in Fire Protection.

Wednesday 7 March 18 Canberra, ACT

Attendees:

1. Vince Massar – Access Canberra, Plumbing / Gas Regulator
2. Tom Roberts – ABCB
3. Mark Ashton – CIT, Teacher
4. Paul Jordan – CIT, Teacher
5. Robert Tiele – Snowgum Plumbing, Director
6. Rodney Apps – CIT, Teacher
7. Ross Heazlewood – MP ACT, Executive Officer
8. Elissa Pirotta – Valetta Projects, Owner
9. Adrian Clarke – CIT, Head Dept
10. Plumbing Phillip Ornall – CIT, Plumbing Dept
11. Peter Pichelmann – CIT, Plumbing
12. Stephen Daniel – CIT, Plumbing
13. Philip Melville – ABCB, Education Vince Ball – CITC, Executive Director
14. Steve Demamiel – CIT, Teacher
15. Wayne Philip – Custom Plumbing, Project
16. Director Mark Frazer – Access Canberra, Manager

Qualification	Comments
Certificate III in Plumbing	People are trained and are not skilled to achieve a licensed outcome, training packages need to included licence requirements. Need to incorporate standards and licensing requirements into a unit of competency, and the RTO needs to train them. Who is proposing the 'summative assessment'? If is for a licence, should be by regulators, conflicts with competency decisions in individual units, some units have to be simulated – re scope of employer work – how would do? This can only cover core, not electives.
Certificate III in Roof Plumbing	Where is the technical information for the roof training package coming from? In ACT roofing is not regulated. Roof plumbing come from the plumbing qualification. There is a need to include the Burra Charter (set of heritage conservation principles) into plumbing packages similar to other training packages. We need to include 'old skills' either into the package or as specialised add on skills.
Diploma of Hydraulic Services	Support retaining fire system design units in Diploma.
General	"Lots of the Plumbing and Services TAG members need to be plumbers. TAG members are not experienced enough to build a training package." "Plumbers are working and find it hard to attend these sessions, you (Artibus) need to hold these sessions in association with plumbing suppliers trade nights." "Don't forget that the training package states the skills and knowledge, student come to college and learn and employers allow the practice ofthese skills on site." "80% of employers do not have the resources or capability to train on site."

	Training at college gives basic knowledge and skills, if an employer gives an apprentice bad advice that is exactly how they will operate.

Thursday 8 March 18 Web Forum 09.30 – 11.30

Attendees:

1. Danielle Taylor – TEC NQ, E-Learning Advisor
2. Rhys Hansen – TEC NQ, Plumbing Facilitator
3. Sanny Basilio – AGB Training Geelong
4. Chris Lawlor – SWTAFE Vic James
5. Paul Angus – AECom
6. Laura Thomas – TAFE QLD
7. Daniel Maier – AURECON – NZ

Qualification	Comments
CIII Roof Plumbing	Roofing needs to include knowledge, skills and requirements for cyclone areas – North QLD.
General	I liaise with about 30 teachers who discuss and evaluate feedback, do you want all the feedback or a consolidated version? Is there any consideration of developing a Certificate II in Plumbing as a national product rather than use the WA accredited course? This could be developed as a career start program with different titles and codes and not impinge or lessen duration of the Certificate III. When will the training package CfE be submitted and be endorsed and appear on the national register? (MT response depends on the consultation received which will inform work to be done; SVA suggested mid to end 2018)

Wednesday 14 March 18 Perth, WA

Attendees:

1. Pokua Asomni – TAC, Principle Consultant
2. Paul Hardman – SMTAFS, Manager VOT
3. Wayne Price – NMTAFE, Head of programs John Whelan – SMTAFE, Lecturer
4. Chris Blakeley – Anchor Hydraulics, Plumber
5. Mike Read – DMIRS, Plumbing Standards
6. Michael Daffen – Anchor Hydraulics, Plumber Tim Peach – IPA, Plumbing Consultant (TAG)
7. Libby King – Apprentice Support Aust, Liaison Officer Frank Fernandez – MPA Skills
8. Scot Oxlade – Anchor Plumbing, Plumber Murray Thomas – MPA, CEO

Qualification	Comments
Certificate III in Plumbing	We have 'cut and fix plumbers' in our industry who only cut and fix pipes and some of them battle to do that. Train general plumbers and then specialise in other areas, similar to doctors. 3 deleted units should be returned: • cut using oxy/LPG equipment • weld using oxy/LPG equipment • weld using manual metal arc.
General	Regarding apprentices – how do they get the on-site skills when some employers do not carry out some of skills within the training package? Training Package requirements have been lost in the translation as far as groups of industry, regulators, RTOs, they need to work together to best train students. There has been a breakdown between the training and meeting knowledge and skills of the training package. RTOs monitor training but who is monitoring on the job experience? We need to develop/introduce more apps into training, which allows the students to see how sizing of materials is calculated. We need to teach them where to look for and apply information, not this is how it is done. It's not so much the calculations but an understanding of the Plumbing Code of Australia and how it applies. Simple they will do, complex they won't. The plumbing regulator need to be involved more in the development of the training package – some states licence roof plumbers and others don't. How will the proposed merging of certain units in the Certificate III affect the Certificate II program? WA is dependent on this program as a pathway into an apprenticeship.

Thursday 15 March 18 Perth, WA

Attendees:

1. Elaine McGrath – CTC/CTF, Manager Res/Dev
2. Paul Muenchow – Dept Training and Workplace Development, Senior Program Officer
3. John Abrahams – NMTAFE, Lecturer
4. Max Garbin – NMTAFE, Lecturer
5. Jason Pepperell – SMTAFE, Quality Consultant
6. David Allen – B&E, Director of G&P (PSTAG)
7. Brian Bintley – PPTEU, State Secretary
8. Geoff Kelly – MPA (IPA), President MPA
9. Shane O'Brien – MPA Skills, Compliance Manager
10. Mark Ansbro – MPA Skills, Training Manager
11. Luke Martino – SMTAFE, Lecturer

Qualification	Comments
Certificate III in Plumbing	There is a disparity between Unit of Competency and what plumbers actually carry out on site.
	Current units have poor content, cut and paste and are not adequate to address knowledge and skills. Need to train in all aspects of plumbing. Minimise the number of electives and ensure that the core units coverthe skills that a plumber needs to have. The core units need to capture about 90% of the plumbing skills required. There needs to transferability across all states. It is awkward to meet all employers of apprentices training needs with so many 'streams' in the Certificate III. Many employers do not have the scope of work or resources to accommodate the training. Some plumbers specialise in specific areas of plumbing.
Certificate III in Gas Fitting	WA are introducing an additional 250 hours of logged practical work/training carried out as a licensing requirement. GTRC are compiling a nationwide feedback survey to determine decision making for licensing. Regulators need to look at and scrutinise training and assessment conducted in other states prior to licensing in WA. Maybe Energy Safety/Aust. should conduct final assessment for gas units. WA plumbers are also gas fitters, titles vary in other states.
Certificate IV in Plumbing and Services	Certificate IV needs to include more practical skills, not just design but also install. – Certificate III addresses the installation, then Certificate IV the design. Units of competency need to detail frequency and volume of performance and be more prescriptive in the assessment requirement
General	Training package transition work has gone too far without industry input. Industry representation for TAG appears short for WA – NPSTAG rep explained the behind the scenes work carried out and produced, with 2 WA persons, ready for industry comment/feedback. Capstone testing has caused problems/difficulties in other trades areas – training and assessing over a period of a 4-year term should be sufficient, if applied correctly.

	Employers need to be further educated on the importance of understanding correct onsite training to continue developing the apprentice's knowledge and skills.

Adelaide: Tuesday 20 March 2018 - Tonsley Campus, TAFE SA

Attendees:

1. Wayne Luke – Bluescope, Product Technical Rep
2. Cathy Keane – TAFE SA, Senior Quality Officer
3. Adam Gueria – Department of State Development, Senior Project Manager
4. Monica Clark – Bluescope, Strategic Account Manager
5. Jeff Clark – OTR, Manager
6. Greg Lyng – MPA SA, Group Training Manager B
7. Ob Gouochico – MPA, Education Consultant
8. Phillip Dodd – PEER, Principal Trainer
9. Michael Bennetts – PEER, Plumbing Trainer
10. Chris Rankin – AMCA, Executive Director
11. Don Sims – MPA SA, Trainer
12. Troy Volkmann – TAFE SA, Lecturer Matt Hills – TAFE SA
13. Lecturer Damon Kreil – TAFE SA, Lecturer
14. Gary Stewart – TAFE SA, Lecturer
15. Michael Aadat – TAFE SA, Lecturer
16. Phillip Braido – Canberra Institute of Technology, Lecturer
17. Eric Parnis – CITB, Research Manager
18. Luke Walsh – TAPS, Operations Manager
19. Kyle Paten – A G Coombs P L, Project Manager

Qualification	**Comments**
Certificate III in Plumbing	TAFESA - we are finding that university graduates are enrolling in Certificate III in Plumbing and using it as a pathway to Certificate IV and Diploma for a career in design/management Mechanical Services should not be just about student numbers, it should be about technology which is not included in the training package eg. welding high pressure pipe. Who included the UEE units into this training package? These units are for refrigeration tasks. – These were included because they replaced the old MEM units. Structure of 34 core units for both general and mechanical services plumbers is good. 8 electives with the flexibility of importing 2 units from other TPs will work well. In WA for gas, will have to align come electives to meet licensing requirements. Emerging trends will include restricted electrical, solar, rainwater, water conservation.

Adelaide: Friday 23 March 2018-Cream Room, Construction Training Centre Building 1 460-492 Beaudesert Rd, Salisbury

Attendees:

1. Karl McConchie – Fire Protection, Maintenance Manager
2. Darren Lauchs – Brisbane Fire, Manager
3. Brian Davies – ARA Group, Director
4. Greg Lodip – Alpha Fire, Director
5. David Ross – FUS, Operations Manager
6. Mark Thompson – FUS, Sprinkler Supervisor
7. Dan– FIT, Sprinkler Trainer
8. Alistair Robinson – FIT. Sprinkler Trainer
9. Nathan Morgan – TSTLA, Lead Plumbing Trainer
10. Gary O'Halloran – Plumbers Union, Secretary
11. Glen Chatterton – STC, Manger
12. Simon Brown – Ellis Air, Construction Manager
13. Sarah Martin – FIT, Training Manager

Qualification	Comments
Certificate III in Plumbing	TAG requires someone from a national level to review the amount of MS units in the Certificate III in Plumbing qualification. We need to include business and financial units to guide and develop business opportunities for the skilful trades people who go broke.
Certificate III in Roof Plumbing	The plumbing industry is a bit blasé about roofing, which causes a lot of workplace injuries – the package needs to address cyclone areas and leaking roofs.
Certificate III in Fire Protection	Installing fire sprinkler systems in not the same as fitting fire extinguishers this unit need to be strengthened or fire extinguishers removed. Plumbers completing the sprinkler fitting unit does not necessarily align with what a sprinkler fitter actually does. Domestic and residential units in Fire Protection need to be returned, employers want it.
General	Concern from the Plumber's Union that Artibus /TAG lack transparency and are making decisions based on their individual advantages. The underlying issues is that other consultation processes lacked transparency and credibility and organised around individual benefit rather than the way the workforce is trained. At the last meeting, Jeremy and Chris were questioned about their agenda and what seemed an attempt to persuade people rather than a consultation process-it appeared a decision was already made. Australia over all industries has very high standards, why are we aiming to dumb training down? We need to ensure that the qualification outcomes reflect the skills required not make it easy to enter the qualifications – that is up to the RTO to accept and enrol. We need to develop more than a training package, it's about learning Workplace is a large part of learning skills and not mistaking for off the job learning.

Monday 26 March 2018 – Roof Plumbing Web Forum

Attendees:

1. Glenn Menzies
2. Anthony Backhouse – TAFE NSW, Gymea (NPSTAG)
3. James Miller – Roof plumber
4. Neil Creek - Bluescope
5. Angela Bennett – MPA TAS
6. Ernie Kretschmer – MPA Qld
7. Gary Bath – MPA VIC
8. Mark Robertson – PSTAG

Qualification	Comments
Certificate III in Roof Plumbing	Include: • CPCxxx Read plans, calculate materials and mark out materials - core • CPCCCM3001 Operate elevated work platforms – from elective to core • CPCCCM2008B Erect and dismantle restricted height scaffolding – from elective to core • CPCCPB3015A Install acoustic and thermal environmental protection systems – in current format it is an elective, if rewritten to align to roof plumbing becomes a core. CPCPRF4011B Design and size roof drainage systems – as an elective Is there a requirement for confined space competency? – No, only roof plumbers working on tank roofs under certain conditions. We need to be aware of how the levelling unit is written to contextualise to roof plumbing. Other skills that should be included into the package: • installation of roofing in bush fire areas (eg. ensure flashing and capping protect against embers entering roof space) • energy efficiency to meet standards • gutter overflow. Limited focus on concealed gutters.
General	Tasmania roofing is not regulated, builders can install roofing. ACT has come across major issues by not having roofing regulated. Roofing covers a broad scope from repairs to small renovations to large warehouses, how is that covered in the package? This is difficult for RTOs to train. The package should concentrate on core competencies and then introduce higher level competencies. New/modern materials are already being used and we need to incorporate them into training. Impossible to train apprentices in technology in the Cert III maybe an alternative method should be introduced.

Monday 19 March 2018 – Hobart

Attendees:

1. Angela Bennett, Master Plumbers, Executive Officer Robert Pearshouse, MPA, Chair
2. John Breen, TasTAFE, Teacher Paul Evans, TasTAFE, Teacher Tony Smeece, TasTAFE, Teacher Josh Swift, TasTAFE, Teacher Anthony Balik, MPA
3. Peter Lucas, AMCA
4. Michael Overeen, MPA, President Chris Kright, TCM- AMCA, Director
5. Michael Shepperd, AMCA, Exec Director Fred Lijauco, TBCITB, R&D Manager Simon Cocker, TBCITB, CEO
6. Chris Philpott, Inspector Gas Infrastructure, Department of Justice Richard Harris, CBOS, Principle Planning Advisor

Appendix C: November 2019 Consultation

The following lists indicate the registrations received and those highlighted in yellow indicate who attended. There were 208 attendees at the forums. The Plumbing project was discussed in all the sessions and industry stakeholders were provided the opportunity to canvass their feedback.

Hobart workshop 15th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Stephen Deverell	stephen.deverell@tastafe.tas.edu.au	TasTAFE
Norm Dennis	norman.dennis@education.tas.gov.au	Sorell College
Heidi Hofler	hhofler@wilsonhomes.com.au	Wilson Homes
Tim Johns	tim.johns@education.tas.gov.au	Rosny College
Wendy Bridges	wendy@mbatas.org.au	Master Builders Tasmania
Amy Ransley	amy@mbatas.org.au	Master Builders Tasmania
Andrew Mellas	andrew.mellas@tastafe.tas.edu.au	TasTAFE
Fred Lijauco	fred@tbcitb.com.au	Tasmanian Building and Construction Industry Training Board
Karin Mathison	karin@tbcitb.com.au	Tasmanian Building and Construction Industry Training Board
Rod Larcombe	rlarcombe@gyc.tas.edu.au	Guilford Young College

Melbourne workshop 19th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Nick Del Grosso	nick.delgrosso@vu.edu.au	Victoria University
Glenn Menzies	glenn@ppteu.asn.au	Plumbing and Pipe Trades Employees Union
Ken Gardner	kengardner37@gmail.com	
Jennifer Mason	jennifer.mason@vba.vic.gov.au	Victorian Building Authority
Adam Bird	adam.bird@vu.edu.au	Victoria University
Mark Henniker	markh@vetassess.com.au	VETASSESS
David Henderson	dhenderson@artibus.com.au	Artibus Innovation
Lynda Green	contact@aatis.com.au	Australian Apprenticeships & Traineeships Information Service
Ben Prowse	ben.prowse@holmesglen.edu.au	Holmesglen
Teresa Signorello	TeresaSignorello@holmesglen.edu.au	Holmesglen

Glen Doorey	gdoorey@swin.edu.au	Swinburne University
Greg Smith	gsmith@nfia.com.au	National Fire Industry Association
Duncan McKimm	dmckimm@swin.edu.au	Swinburne University
Kam Waraich	kamw@orange.edu.au	Orange International College
Darryn McKenzie	darryn2@hotmail.com	Trade Institute of Victoria
Percy Pillai	percy.pillai@awu.net.au	Australian Workers` Union
Chin Tiong Khoo	ceo@comqual.com.au	Complete Qualifications
Alan Hopkins	alanhop@vetassess.com.au	VETASSESS
Peta Cherry	pcherry@mmtc.com.au	Murray Mallee Training
Diana McGowan	mcgowan.diana.d@edumail.vic.gov.au	Victorian Registration and Qualifications Authority
Tansel Alici	tansel.alici@buildersacademy.com.au	Builders Academy Australia
Aman Chawla	aman@orange.edu.au	Orange International College
Amjad Humayoun	blessamjad@gmail.com	
Ron Ottery	ronaottery@gmail.com	
Martin Los	mlos@wodongtafe.edu.au	Wodong TAFE
Adam Laxton	adam.laxton@chisholm.edu.au	Chisholm Institute
Bryan Ornsby	bryan.ornsby@chisholm.edu.au	Chisholm Institute
Andrew Shea	andrew.shea@buildersacademy.com.au	Builders Academy Australia
Ingrid Mountford	imountford@mbav.com.au	Master Builders Victoria
Kamran Ikram	kamran.aie@gmail.com	
Josian Berard	josian.berard@holmesglen.edu.au	Holmesglen
Elizabeth Jansz	Elizabeth.jansz@holmesglen.edu.au	Holmesglen
Liam O`Hearn	liamo@cfmeu.edu.au	CFMEU
Brendan Gould	brendan.gould@plumber.com.au	Master Plumbers
Marnie Rangan	marnie@orange.edu.au	Orange International College
Nick Mitchell	nickmitchell@mp.edu.au	Melbourne Polytechnic
Peter Baulch	peterbaulch@mp.edu.au	Melbourne Polytechnic
Robert Cooke	robertcooke@mp.edu.au	Melbourne Polytechnic
Mark Dean	mark@aatis.com.au	Australian Apprenticeships & Traineeships Information Service
Reif Keceli	reif@tiv.vic.edu.au	Trade Institute of Victoria
Leigh Hill	leigh.hill@holmesglen.edu.au	Holmesglen
David Lando	david@tiv.vic.edu.au	Trade Institute of Victoria
Michelle Harrex	m.harrex@hia.com.au	HIA

Adelaide workshop 20th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Troy Volkmann	troy.volkmann@tafesa.edu.au	TAFE SA

Samir Saxena	samir.saxena08@gmail.com	
Manjit Singh Salaria	manus@trvhomes.com.au	
Fernando D`Apollonio	fernando@dvservices.com.au	
Peter Van Loggem	peter.vanloggem@bluescopesteel.com	BlueScope Steel
Wayne Dodd	wayne.dodd@sa.gov.au	
Simon Last	simon@citc.com.au	Construction Industry Training Centre
Mark Gosden	markg@citb.org.au	Construction Industry Training Board South Australia
David Thompson	david@mibt.edu.au	Masters in Building Training
Trisch Baff	trisch@fcta.com.au	Flexible Construction Training & Assessment
Phillip Dodd	phillip@peer.com.au	Peer

Perth workshop 21st November 2019 10.30 - 12.30

Registrant	Email	Organisation
David Cunningham	David.Cunningham@skillhire.com.au	Skill Hire
Anita Host	anita.host@srtafe.wa.edu.au	South Regional TAFE
Yvette Groenheide	yvette.groenheide@srtafe.wa.edu.au	South Regional TAFE
Jason Pepperell	jason.pepperell@smtafe.wa.edu.au	South Metro TAFE
Michael Tomlinson	michael.tomlinson@smtafe.wa.edu.au	South Metro TAFE
Wayne Sidebottom	wayne.sidebottom@srtafe.wa.edu.au	South Regional TAFE
Grant Hastie	grant.hastie@srtfae.wa.edu.au	South Regional TAFE
Ross Williams	ross.williams@nmtafe.wa.edu.au	North Metro TAFE
Trevor Bullock	trevor.bullock@nmtafe.wa.edu.au	North Metro TAFE
Bob Benkesser	bbenkesser@cfmeuwa.com	Construction, Forestry, Maritime, Mining and Energy Union
Tania Sawyer	tania@mbawa.com	Master Builders WA
Alan Gregory	alan.gregory@australiantraining.com.au	Australian Training
Tyler Henderson	skygodsinc@gmail.com	
Jess Sethi	jess@mbawa.com	Master Builders Association of WA
Michael McLean	mikegmclean@outlook.com	MBA Australia
Mark Baker	mark.baker@srtafe.wa.edu.au	South Regional TAFE
Grant Fitton	grant.fitton@nmtafe.wa.edu.au	North Metro TAFE
Liam Cochran	liam.cochran@nmtafe.wa.edu.au	North Metro TAFE
Paul Muenchow	paul.muenchow@dtwd.wa.gov.au	Department of Training and Workforce Development
Wayne Price	wayne.price@nmtafe.wa.edu.au	North Metro TAFE

Mark Ansbro	marka@mpaskills.com.au	MPA Skills
Amanda Dawes	amandad@masterpainter.asn.au	Master Painters and Decorators
Alan Hall	alan.hall@smtafe.wa.edu.au	South Metro TAFE
Louise Morrison	louisemorrison@education.wa.edu.au	Department of Education
Loris Moriconi	lorism@abngroup.com.au	ABN Group
Warren Cluff	warren@gtsw.com.au	The Apprentice and Traineeship Company
Ben Pearson	benp@smyl.com.au	Smyl Community Services
Ian Eardley	ieardley@directionswa.com.au	Directions WA
Belinda Goddard	adminwa@awci.org.au	Association of Wall & Ceiling Industries
Chris Liaros	chris@gtsw.com.au	The Apprentice and Traineeship Company
Michele Wylie	mwylie@cstc.com.au	Construction Skills Training Centre
Derek Stevenson	derek.stevenson@smtafe.wa.edu.au	South Metro TAFE
Mick Gifford	mick.gifford@smtafe.wa.edu.au	South Metro TAFE
Andrew Benk	andrewb@mpaskills.com.au	MPA Skills
Andrew Gilchrist	andrew.gilchrist@nmtafe.wa.edu.au	North Metro TAFE
Rob Berryman	rberryman@ctf.wa.gov.au	Construction Training Fund
John Makrillos	johnm@mpaskill.com.au	MPA Skills
Neville Eastabrook	neville.eastabrook@smtafe.wa.edu.au	Master Painters and Decorators
Alan Hail	alan.hall@smtafe.wa.edu.au	South Metro TAFE
Donald Sly	don@waata.com.au	WA Advanced Training Academy

Darwin workshop 28th November 2019 10.30 - 12.30

Registrant	**Email**	**Organisation**
Archie Wright	ja.wright@hia.com.au	HIA
Yvonne Webb	yvonne.webb@isacnt.org.au	ISAC NT
Mark Fudge	mark.fudge@cdu.edu.au	Charles Darwin University
Luis Espinoza	luis.espinoza@cdu.edu.au	Charles Darwin University
Neda Aleksic	neda.aleksic@isacnt.org.au	ISAC NT
Liam Fraser	liamfraser@hotmail.com	Batchelor Institute of Indigenous Tertiary Education
Martin Brain	martin.brain@cdu.edu.au	Charles Darwin University
Michael Hamilton	michael.hamilton@cdu.edu.au	Charles Darwin University
Brad Shepherd	bradley.shepherd@cdu.edu.au	Charles Darwin University
Ray Fogolyan	ray@homestaraustralia.com.au	Home Star Rating Australia
Michael Lane		CDU - Plumbing
Michael Lemon		Batchelor Institute of Indigenous Tertiary Education

Ross Campbell		Batchelor Institute of Indigenous Tertiary Education
Dave Crick		Batchelor Institute of Indigenous Tertiary Education

Newcastle workshop 26th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Aaron Ycas	AaronY@novaskill.com.au	Novaskill
Ellen Gillespie	ellen.gillespie@daracon.com.au	Daracon
Nat Boyd	nboyd2203@gmail.com	
Brad Thomas	brad.thomas9@tafensw.edu.au	TAFE NSW
Tanya Hall	tanya.hall@htc.nsw.edu.au	Hunter Trade College
Anthony Willis	tony.willis@gimbalgroup.com.au	Gimbal Training
Karen Turner	Karen.Turner@safework.nsw.gov.au	Safe Work
Rachel Black	Rachel.Black@safework.nsw.gov.au	Safe Work

Launceston workshop 29th November 2019 10.30 - 12.30

Registrant	Email	Organisation
David Doughty	david@ths.com.au	Total Height Safety
Robert Webb	robjoawebb@education.tas.gov.au	Department of Education Tasmania
Dean Mainwaring	dean.mainwaring@education.tas.gov.au	Department of Education Tasmania
Pete Forrester	p.forrester@tasbgas.com.au	Tasmanian Building Group Apprenticeship Scheme
Ben Luttrell	ben.luttrell@education.tas.gov.au	Department of Education Tasmania
Charlotte Blank	charlotte@youthfutures.org.au	Youth Futures Inc

Sydney workshop 18th November 2019 10.30 - 12.30

Registrant	Email	Organisation

Mohinda Singh	mohinda.singh2@defence.gov.au	Department of Defence
Adel Abourjaily	adel.abourjaily1@tafensw.edu.au	TAFE NSW
Rodney Jackson	rodney.jackson@tafensw.edu.au	TAFE NSW
Paul Lawrence	paul@mibt.edu.au	Masters in Building Training
Danny White	danny.white@industry.nsw.gov.au	NSW Department of Industry
Jeff Norton	jeffrey.norton@tafensw.edu.au	TAFE NSW
Neil Storey	neil.storey@safework.nsw.gov.au	Safe Work NSW
Ben Reyes	benny_reyes@outlook.com	
Robyn Pearson	robynp216@gmail.com	
Cora Xu	cora@thinkbrick.com.au	Think Brick Australia
Mary-Clare Turnbull	maryclare.turnbull@syd.catholic.edu.au	Sydney Catholic Schools
Shadi Faraj	shadi.faraj@bingoindustries.com.au	Bingo Industries
Chris Jones	chris.jones@redeemer.org.au	Redeemer Baptist School
David Bolton	david.bolton@redeemer.org.au	Redeemer Baptist School
Llewellyn Biggar	llewellyn.biggar@tafensw.edu.au	TAFE NSW
Mirko Naidofski	mickn65@gmail.com	
Rod O`Laco	rod.olaco@tafensw.edu.au	TAFE NSW
Greg Cheetham	gregcheetham6@gmail.com	

Canberra workshop 19th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Tony Cowlishaw	anthony.cowlishaw@cit.edu.au	Canberra Institute of Technology
Kahren Maclean	Kahren.maclean@swa.gov.au	Safe Work Australia
Amy Jones	ajones@mba.org.au	Master Builders ACT
Leigh Watson	eo@masterplumbersact.asn.au	Master Plumbers ACT
Sam Reynolds-Smith	sreynolds-smith@mba.org.au	Master Builders ACT
Peter Hansen	peter.hansen@cit.edu.au	Canberra Institute of Technology
Leigh Hill	Leigh.Hill@holmesglen.edu.au	Holmesglen
Liz Nair	lnair@mba.org.au	Master Builders ACT
Mark Page	mark.page@cit.edu.au	Canberra Institute of Technology
Jennifer Lawrence	jennifer.lawrence@masterbuilders.com.au	Master Builders
Vince Ball	vince.b@iimetro.com.au	
James Folk	james.folk@cit.edu.au	Canberra Institute of Technology
Paul Jurak	paul.jurak@cit.edu.au	Canberra Institute of Technology
Stephen Daniel	steve.daniel@cit.edu.au	Canberra Institute of Technology
Bill Smith	bill.smith@swa.gov.au	Safe Work Australia
Adrian Clarke	Adrian.Clarke@cit.edu.au	Canberra Institute of Technology

Karen Abel	abelkr@gmail.com	
Phillip Braido	phillip.braido@cit.edu.au	Canberra Institute of Technology
Peter Warne	peter.warne@cit.edu.au	Canberra Institute of Technology
Rachael Paton	rachael.paton@cit.edu.au	Canberra Institute of Technology

Bendigo workshop 27th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Peter Taylor	ptaylor@mmtc.com.au	Murray Mallee Training Co
Tony Burmeister	aburmeister@bendigotafe.edu.au	Bendigo TAFE
Phillip Langley	plangley@bendigotafe.edu.au	Bendigo TAFE
Torin Coakley	tcoakley@bendigotafe.edu.au	Bendigo TAFE
Tony Hughes	thughes@bendigotafe.edu.au	Bendigo TAFE
Leigh Hauke	lhauke@bendigotafe.edu.au	Bendigo TAFE
Shane Kennedy	skennedy@bendigotafe.edu.au	Bendigo TAFE
Mick Fry	mfry@bendigotafe.edu.au	Bendigo TAFE
Matthew Hague	mhague@bendigotafe.edu.au	Bendigo TAFE
Bruce Burns	burns.bruce.b@edumail.vic.gov.au	Government

Geelong workshop 25th November 2019 10.30 - 12.30

Registrant	Email	Organisation
Stephen Smith	stephen@buildingskillscentre.com.au	Building Skills Centre
Dale Emmerson	dale@buildingskillscentre.com.au	Building Skills Centre
Martin Baine	m.baine@federation.edu.au	Federation University
David Henderson	dhenderson@artibus.com.au	Artibus Innovation
Richard Sapwell	richard.sapwell@chisholm.edu.au	Chisholm Institute
Mark Pullin	mark@aiet.edu.au	

Brisbane workshop 25th November 2019 10.30 - 12.30

Registrant	Email	Organisation

Vanessa Norimi	vanessa.norimi@tafe.qld.edu.au	TAFE QLD
Ross Davidson	rdavidson@cfmeu.org	CFMEU
Mark Robertson	mark.robertson@tafe.qld.edu.au	TAFE QLD
Brianna Kliese	bkliese@lvrc.qld.gov.au	Lokyer Valley Regional Council
Tony Bishop	tony.bishop@becomeabricklayer.com.au	Australian Brick & Blocklaying Training Foundation
David McDonald	djmcd2@eq.edu.au	Education Queensland
Frank Moebus	fmoebus@bayset.com.au	Bayset
Ben Heaton	ben.heaton@everthought.com.au	Everthought Education
Jacob Galway	jacobg@everthought.com.au	Everthought Education
Anthony Chan	anthonyc@everthought.com.au	Everthought Education
Kerry Apelt	Kapelt@optusnet.com.au	
Len Mason	len.mason@atq.com.au	All Trades Queensland
Glen Chatterton	glen@stqld.com.au	The Plumbing Industry Climate Action Centre
Mandy Fallon	mandy.fallon@csq.org.au	Construction Skills Queensland
Ernie Kretschmer	ernie.kretschmer@mpaq.com.au	Master Plumbers` Association of Queensland
Deanna Edwards	deanna.edwards@civilsafety.edu.au	Civil Safety
Tim Harris	tim@ammonite.com.au	Ammonite
Joanne Brooks	joanne.brooks@fta.edu.au	Foundation Training Australia
Kris Andre	Kris.Andre@bluedogtraining.com.au	Blue Dog Training
Tracy Van Der Rhede	compliance@civilsafety.edu.au	Civil Safety
Mark Lewis	mark.Lewis@tafe.qld.edu.au	TAFE QLD
James Baker	jimbaker@notjustapainter.com.au	Brisbane House Painter
Jeff Brennan	jeff.b@pcdtraining.edu.au	PCD Training
Dean Richardson	d.richardson@cqu.edu.au	CQ University
Naisen Nambahin	naisen.nambahin@aptc.edu.au	Australia Pacific Training Coalition
Rick Harris	rick@ammonite.com.au	Ammonite
Roger Millroy	roger@ctrain.edu.au	Construction Industry Training
Tracey Hancock	Tracey.Hancock@asqa.gov.au	ASQA
Brad Gray	bgray@biga.com.au	Biga Training
Anthony Cook	buildertrainingaustralia@gmail.com	Builder Training Australia
Adam Profke	adam.profke@mbqld.com.au	Master Builders Queensland
Tony Brown	enterprise@academique.com.au	Academique
Allan Janicijevic	allan@mibt.edu.au	Masters in Building Training
Neil Creek	neilc@steel.org.au	Australian Steel Institute
Bruce Fyfe	bruce.fyfe@csq.org.au	Construction Skills Queensland
Scott Kind	scott.kind@bristile.com.au	Bristile Roofing
Paul Vivian	paul.vivian@attc.org.au	Australian Trade Training College
Karen Twyford	karen.twyford@tursa.com.au	Tursa Employment & Training
Melissa Differ	mlb@urbanglobal.com	Urban Global

Alan Waldron	alan.waldron@outlook.com.au	Construction IRC
Peter Forsingdal	peter.forsingdal@hutchinsonbuilders.com.au	Hutchinson Builders

National webinars

In addition to the Nation forums, online webinars were facilitated to support stakeholder participation. The webinars followed the same approach of the national forums.

A total of 8 national webinar were held. The webinars were designed to provide industry with project specific updates, as well as to consult regarding the inclusion of CPCCWHS1001 *Prepare to work safely in the construction industry* to the core. Following a directive from the AISC in February 2020 this unit has not been included in the Plumbing qualifications.

The following registrations were received for the webinars:

Plumbing and Fire Services Consultation Webinar 22nd November 2019 11.00 - 12.00	
Registrant	**Email**
Jennifer Mason	jennifer.mason@vba.vic.gov.au
Stephen Hammond	stephen.hammond@chisholm.edu.au
Rodney Jackson	rodney.jackson@tafensw.edu.au
Ernie Kretschmer	ernie.kretschmer@mpag.com.au
James McGrath	james.mcgrath31@tafensw.edu.au
Mark Robertson	mark.robertson@tafe.qld.edu.au
Neda Aleksic	neda.aleksic@isacnt.org.au
Baker Bruce	baker.bruce@aptc.edu.au
Gail Tamakam	gail.tamakam@aptc.edu.au
Kerry Apelt	Kapelt@optusnet.com.au
Robert Funston	robert.funston@chisholm.edu.au
Iain McNiven	iain.mcniven@tafensw.edu.au
Bryan Ornsby	bryan.ornsby@chisholm.edu.au
Clive Stander	clive.stander@boxhill.edu.au
Brendan Hopkins	brendan.hopkins@chisholm.edu.au
Ben Prowse	ben.prowse@holmesglen.edu.au
Norman Browne	norman.browne@tafensw.edu.au
Nat Boyd	nathaniel.boyd1@tafensw.edu.au
Steven Tuckwell	steven.tuckwell13@tafensw.edu.au
Jeffrey Halpin	jeffrey.halpin@opencolleges.edu.au
Rob Gilman	robert.gilman@tafensw.edu.au
Darrel Vecchio	vecchio@bizmatrix.com.au

Appendix D: Industry stakeholders

Validation round no. 2: October – November 2018

Name	Company	Jurisdiction	Type of stakeholder	Component
Ron Smith	AWEdwards	NSW	Employers/ Industry	Certificate III in Plumbing
Gregory Leonard Tink	Plumbers Direct Pty Ltd	VIC	Employers/ Industry	Certificate III in Plumbing
Michael Mountford	Mountford Plumbing Services	NSW	Employers/ Industry	Certificate III in Plumbing
Peter	Priority plus plumbing	NSW	Employers/ Industry	Certificate II Drainage
Tai irwin	Tai Irwin Pty ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Grahame Gunton	BG Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Jason Calear	CQ Solutions	NSW	Learners and Employees	Certificate III in Plumbing
Evan Campbell	Leonay Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Tom Martin	ACT Master Plumbers Association	ACT	Employers/ Industry	Certificate III in Plumbing
Richard Cooke	Re Quality Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Dimitrios Thimiopoulos	Allpipe Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Murray Thomas	MPGA WA	WA	Employers/ Industry	Certificate IV Plumbing and Services
Murray Thomas	MPGA WA	WA	Employers/ Industry	Certificate II Drainage
Derek Rowe	Egabva Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Matt Johnson	Ace Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Mark Sadler	Pipeline Hydraulics	WA	Employers/ Industry	Certificate III in Plumbing
Max Jones	Kalamunda Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Peter Dawe	Oceanedge Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Paul O'Leary	Centerside Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Michael Harley	Harleys Complete Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Paul Manifis	Majestic Plumbing	WA	Employers/ Industry	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
John Cohen	Prospect plumbing	NSW	Regulators	Certificate IV Plumbing and Services
Ron Grant	Diploma Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Bill Busby	Pride Plumbing	WA	Employers/ Industry	Certificate III in Plumbing
Murray Thomas	MPGA WA	WA	Employers/ Industry	Certificate III in Plumbing
Geoff Kelly	Kellys Hot Water	WA	Employers/ Industry	Certificate III in Plumbing
Kyla Jones	Master Plumbers and Gasfitters Association of WA	WA	Employers/ Industry	Certificate III in Plumbing
Honora Gee	TAFE Queensland SkillsTech	QLD	RTOs	Diploma Hydraulic Services
J G Wilson Plumbing Pty Ltd	Emergency Plumbers	NSW	Employers/ Industry	Certificate III in Plumbing
Tim	Slipstream Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Geoff Britten	TAFEQLD Skillstech	QLD	RTOs	Certificate II Drainage
Dennis King	D.R. King Plumbing Services P/Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Kerry Apelt	Kerry Apelt Plumbing	NSW	Employers/ Industry	Certificate II Drainage
Craig	Bordas	WA	RTOs	Certificate III in Plumbing
Jon Waller	Vermont Plumbing Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Alan	Hall	WA	RTOs	Certificate III in Plumbing
Sven Baxter	JPD 1270	NT	Learners and Employees	Certificate III in Plumbing
James Attard	James Attard Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Tim Cook	Plumber & Electrician To The Rescue	NSW	Employers/ Industry	Certificate III in Plumbing
Geoffrey F James	G F James Pty Ltd	NSW	Employers/Industry	Certificate III in Plumbing
Frank Knapton	Bonnyrigg Plumbing Services	NSW	Employers/ Industry	Certificate III in Plumbing
Shannon Lakic	Caravan Industry Association of Australia	NSW	Employers/ Industry	Certificate III in Gas Fitting
James Elcoate	Elcoate Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Geoffrey Frank James	G F James Plumbing Services	NSW	Employers/ Industry	Certificate III in Plumbing
Chris Quinlan	Cilburra plumbing services	NSW	Employers/ Industry	Certificate III in Plumbing
Geoff Britten	TAFEQLD Skillstech	QLD	RTOs	Certificate III in Plumbing
David Van-Ingen	Vans Plumbing Service Pty Ltd	NSW	Employers /Industry	Certificate III in Plumbing
Ken McDonald	K Mac Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Lisa Woodorth	Woodorth Plumbing Services P/L	New South Wales	Employers/ Industry	Certificate III in Plumbing
Danny Hall	Danny Hall Plumbing	NSW	Employers/ Industry	Certificate III in Fire Protection
Luke Martino	South Metropolitan TAFE	WA	RTOs	Certificate III in Plumbing
Paul Naylor	Master Plumbers Association of NSW	NSW	Employers/ Industry	Certificate III in Plumbing
Jared	Endurodrain	NSW	Employers/ Industry	Certificate III in Plumbing
Alan W Ryder	Plumbing Sheetmetal Coppersmiths Instructors Association Inc.	VIC	Employers/ Industry	Certificate III in Plumbing
Damian Moon	M&K Plumbing Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Kerrie Wilson	S & K Wilson Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Craig Michelutti	Piperight Services	NSW	Employers/ Industry	Certificate III in Plumbing
John Jordan	Jordans NSW	SW	Employers/ Industry	Certificate IV Plumbing and Services
Steven Ackerley	Ackerley Plumbing Services Pty Ltd	SW	Employers/ Industry	Certificate III in Plumbing
James Field	Caravan Industry Association of Australia	QLD	Other	Certificate III in Plumbing
Daniel Sahlberg	Caravan Industry Victoria	VIC	Other	Certificate III in Plumbing
Peter Scollard	Peter Scollard Plumbing and Consultancy	NSW	Learners and Employees	Certificate III in Plumbing
Bill Armstrong	B & J Armstrong Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Benjamin Hawkins	Air Conditioning & Mechanical Contractors' Association	VIC	Employers/ Industry	Certificate III in Plumbing
Ken Gardner	MP	VIC	Employers/ Industry	Certificate III in Plumbing
Glenn Menzies	CEPU Plumbing Division	VIC	Employers/ Industry	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Paul Cummings	N.H. Cummings & Son Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Matt Hundy	Oakleigh Plumbing Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Peter Richardson	Sidney & Richardson	NSW	Employers/ Industry	Certificate III in Plumbing
Lizzie Wigg	Wigg Plumbing	NT	Employers/ Industry	Certificate III in Plumbing
Hayley Hope-Hodgetts	Complete Plumbing	NSW	Employers/Industry	Certificate III in Plumbing
David Holmes	John W Phillips Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Terry Keelan	Terry Keelan Plumbing Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Tony Pavlich	Pav Plumbing P/L	NSW	Employers/ Industry	Certificate III in Plumbing
Trevor Moon	T R Moon Pty Ltd	NSW	Employers/ Industry	Certificate III in Plumbing
Peter Scales	Turon Plumbing Services PL	NSW	Employers/ Industry	Certificate III in Plumbing
Jeff Rogers	Western Tanks	NSW	Employers/ Industry	Certificate III in Fire Protection
Kevin Allan	Architectural Leadwork Pty Ltd	NSW	Employers/ Industry	Certificate III in Roof Plumbing
Greg Smith	National Fire Industry Association	VIC	Employers/ Industry	Certificate III in Fire Protection
Mitchell Wright	Wright Plumbers & Suppliers P/L	NSW	Employers/ Industry	Certificate III in Plumbing
Todd Melrose	Todsta Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Darryl	city coast	NSW	Employers/ Industry	Certificate III in Plumbing
Paul Jarman	Sky Blue Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Sean	Sweeneys Plumbing Services	NSW	Employers/ Industry	Certificate III in Plumbing
D.Castle	Skills Tech	QLD	RTOs	Certificate III in Plumbing
Jason Higgins	Jason Higgins Plumbing Pty Ltd	NSW	Employers /Industry	Certificate III in Plumbing
Shona Zulsdorf	Plumbers Licensing Board	WA	Regulators	Certificate III in Plumbing
Adam Nasello	Master Plumbers	NSW	Employers/ Industry	Certificate III in Plumbing
Lisa Ruyg	Carpentaria Shire Council	QLD	Employers/ Industry	Certificate III in Plumbing
Nicholas Collins	NJ Collins Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Rob Hansen	Barden Steeldeck Industries	VIC	Employers/ Industry	Certificate III in Plumbing
Mark Brown	Master Plumbers College Sydney	NSW	RTOs	Certificate III in Plumbing
Kevin Shinners	Shinners Plumbing pty Ltd	Victoria	Employers/ Industry	Certificate III in Plumbing
Douglas	MPAT	NSW	RTOs	Certificate III in Plumbing
Robert Beard	Office of the Technical Regulator	South Australia	Regulators	Certificate III in Plumbing
Ben Radley	Fire Technology P/L	QLD	Employers/ Industry	Diploma Hydraulic Services
Louis Chapman	CWBTS	NSW/QLD	RTOs	Certificate IV Plumbing and Services
Andrew Shea	Builders Academy Australia	VIC	RTOs	Certificate IV Plumbing and Services
Troy Campbell	Wigg Plumbing	NT	Employers/ Industry	Certificate III in Gas Fitting
John Maclean	Gold Medal Services	NT	Employers/ Industry	Certificate III in Plumbing
Michael Bergin	MRCAA	NSW	Employers/ Industry	Certificate III in Roof Plumbing
Darrel Vecchio	Bizmatrix Pty Ltd	QLD	Employers/ Industry	Certificate IV Plumbing and Services
Chris Hardy	Firesafe	WA	Learners and Employees	Certificate III in Fire Protection
Rob Gilman	TAFE	NSW	Employers/ Industry	Certificate III in Plumbing
Norm Anderson	NSG Plumbing	VIC	Employers/ Industry	Certificate III in Plumbing
Joseph Bouten	XFP	QLD	Learners and Employees	Certificate III in Plumbing
Grant Donald	Premier Plumbing Service	Vic	Employers/ Industry	Certificate III in Plumbing
David Vertue	TAFESA	SA	RTOs	Certificate IV Plumbing and Services
Shayne La Combre	PICAC	Victoria	RTOs	Certificate III in Plumbing
Sandra Duchnaj	CIT	ACT	RTOs	Certificate III in Plumbing
Anthony Pingnam	Terrace Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Rodney Ware	AHSCA (NSW)	NSW	Employers/ Industry	Diploma Hydraulic Services
Scott Mitchell	Scottys pro plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Scott Dowsett	Cooke & Dowsett	VIC	Employers/ Industry	Certificate III in Plumbing
Dylan Sambrook	Private plumber	NSW	Employers/ Industry	Certificate III in Plumbing
Daniel Smolenaars	Smolenaars Plumbing	VIC	Employers/ Industry	Certificate III in Plumbing
Michael Tomlinson	Tomlinson Plumbing	VIC	Employers/ Industry	Certificate III in Plumbing
Malcolm McCulloch	MGM Plumbing Building and Property	QLD	Employers/ Industry	Certificate III in Plumbing
Stephen Bird	Sole trader	NSW	Employers/ Industry	Certificate III in Plumbing
Joachim Haase	South Metro TAFE	WA	RTOs	Certificate III in Plumbing
Bradley J Watts	TAFE QLD	QLD	RTOs	Certificate III in Plumbing
Shaun Johnston	Burdekin Shire Council	QLD	Employers/ Industry	Certificate IV Plumbing and Services
Liam Donnelly	CE Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Daniel Goddard	Premier Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
will	Intaflow Services	QLD	Learners and Employees	Certificate III in Plumbing
Karl Bowman	Davis Bro Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Matthew	Holley Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Steven	Pro Plumbing Australia	NSW	Learners and Employees	Certificate III in Plumbing
Daniel Richards	Underground Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Tim Appleton	Seven Plumbing	QLD	Learners and Employees	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Rick Turner	Blue Frog	QLD	Learners and Employees	Certificate III in Plumbing
Corey	Adams Commercials	QLD	Learners and Employees	Certificate III in Plumbing
Jorrel Alexander	Totally Plumbing and Gas	QLD	Learners and Employees	Certificate III in Plumbing
Gary Bath	Master Plumbers Association	Victoria	Employers/Industry	Certificate III in Plumbing
Kelvin Tytherleigh	Toowoomba Regional Council	QLD	Employers/Industry	Certificate III in Plumbing
Mary-Anne Rackley	TAFE QLD Skills Tech	QLD	RTOs	Certificate III in Plumbing
Peter Daly	Master Plumbers and Mechanical Services Association of Australia	VIC	Employers/ Industry	Certificate III in Plumbing
Ian Andrews	Employee	QLD	Learners and Employees	Certificate III in Plumbing
Jarred Symons	Dayboro plumbing & drainage	QLD	Learners and Employees	Certificate III in Plumbing
Jordan Tracey-Bower	MKD investments	QLD	Learners and Employees	Certificate III in Plumbing
Brayden Pergallini	Cargo Plumbing	QLD	Employers/ Industry	Certificate III in Plumbing
Jacob Sheriff	Bridger frankland and drainage	NSW	Learners and Employees	Certificate III in Plumbing
Stuart Pratt	plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Arkheem Lucchiari	EEP Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Nicholas Hopper	plumbing works gold coast	QLD	Learners and Employees	Certificate III in Plumbing
Jak	Advanced Maintenance Service	QLD	Learners and Employees	Certificate III in Plumbing
Harry Darbyshire	On The Plumb	QLD	Learners and Employees	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Joshua Brennan	AMS	QLD	Learners and Employees	Certificate III in Plumbing
Benjamin Thompson	NSP group	QLD	Learners and Employees	Certificate III in Plumbing
Jeandre	Retz Plumbing	Qld	Learners and Employees	Certificate III in Plumbing
Danny Everingham	Mainline Plumbing	QLD	Employers/ Industry	Certificate III in Plumbing
John Raftos	City West Plumbing	QLD	Employers/ Industry	Certificate III in Plumbing
Benson Marquart	Steve Pickett Plumbing	Qld	Learners and Employees	Certificate III in Plumbing
Jack Paterson	Projex plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Eddie Porter	Intaflow Services	QLD	Learners and Employees	Certificate III in Plumbing
Aaron Healy	Jv plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Steven Walker	platinum plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Sam Baker	Cargo Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Stephen Brown	TAFE qld Gold Coast	QLD	Other (please specify)	Certificate III in Plumbing
Bailey Haigh	Jeff MacDonald Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Jeremy Collins	impact plumbing and gas	QLD	Learners and Employees	Certificate III in Plumbing
jacob Everingham	mainline plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Ryan Hipwell	Hipwell Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Peter Pichelmann	Canberra Institute of Technology	ACT	RTOs	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Eon Radley	Fire Technology P/L	QLD	Employers/ Industry	Diploma Hydraulic Services
Myles Schofield	Schofield	QLD	Employers/ Industry	Certificate III in Plumbing
Braeden Grant	eep plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Daniel Jeffery	PlumbIt	QLD	Learners and Employees	Certificate III in Plumbing
Jack Maybon	rapid time plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Nathan Morgan	MKD Investments	QLD	Learners and Employees	Certificate III in Plumbing
Sebastian Tuuga	Pipe Rescue	QLD	Learners and Employees	Certificate III in Plumbing
Lucas Martin	Shore Plumbing and Drainage	QLD	Learners and Employees	Certificate III in Plumbing
Jade Slater	nuflow	QLD	Learners and Employees	Certificate III in Plumbing
Lachlan mullins	commodore plumbing	QLD	Learners and Employees	Certificate III in Plumbing
James Deighton	Plummit	QLD	Learners and Employees	Certificate III in Plumbing
Tobias Little	city of gold coast	QLD	Learners and Employees	Certificate III in Plumbing
Bryce	Pipewise Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Jarrod Smith	Shore Plumbing & Drainage	QLD	Learners and Employees	Certificate III in Plumbing
Tony Backhouse	Loftus Plumbing/Roof Plumbing	NSW	Employers/Industry	Certificate III in Roof Plumbing
Darin Evans	Australian Fire Association	NSW	Employers/ Industry	Diploma Hydraulic Services
Wayne Marchant	TAFESA	SA	RTOs	Certificate III in Plumbing

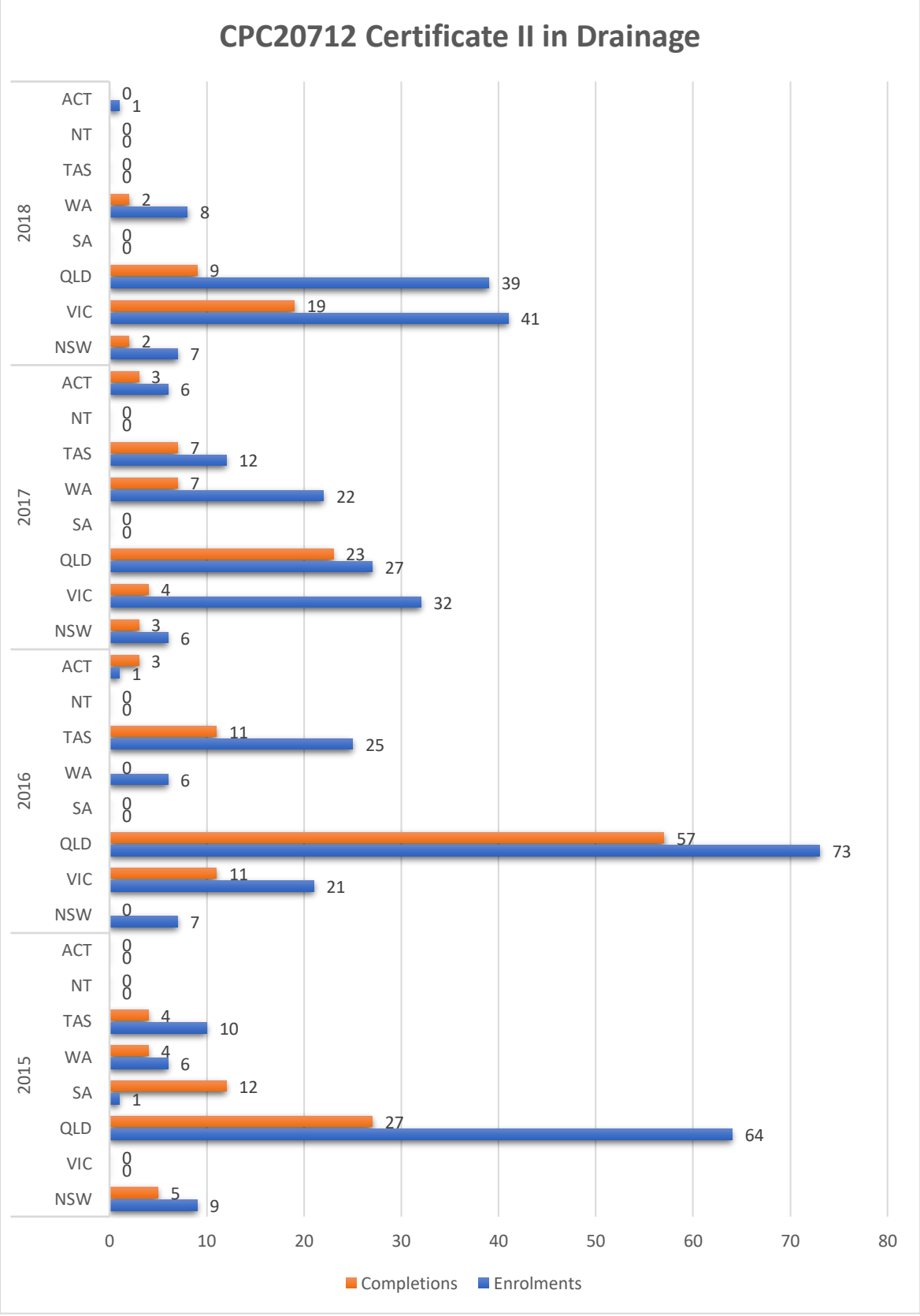
Name	Company	Jurisdiction	Type of stakeholder	Component
Fred Savage	Plumber	NSW	Employers/ Industry	Certificate III in Plumbing
Justin Stevens	Grid Plumbing Group	QLD	Learners and Employees	Certificate III in Plumbing
Adrian Patterson	Tafe Queensland	QLD	RTOs	Certificate III in Plumbing
Ethan Zaharis	Chosen Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Steven Taylor	Quinn plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Joshua Taylor	K&K Taylor PLumbing	QLD	Learners and Employees	Certificate III in Plumbing
Bryce Harwood	Carbon Services Group	QLD	Learners and Employees	Certificate III in Plumbing
Kye	Falla plumbing qld	QLD	Learners and Employees	Certificate III in Plumbing
Declan	plumbing work gold coast	QLD	Learners and Employees	Certificate III in Plumbing
Ethan Quinn	Quinn Plumbing	QLD	Learners and Employees	Certificate III in Plumbing
Brad Ryan	BlueScope Steel	NSW	Employer/ Industry	Certificate III in Roof Plumbing
Andrew McPhan	Gold Coast TAFE	QLD	RTOs	Certificate III in Plumbing
Brtuce Weatherill	Tafe Qld	QLD	RTOs	Certificate III in Plumbing
Martyn Lewis	Hirotec	VIC	Learners and Employees	Certificate III in Fire Protection
Kingsley Tynan	TAFE QLD	QLD	RTOs	Certificate III in Plumbing
Wayne Price	North METRO TAFE	WA	RTOs	Certificate III in Plumbing
Tania Harris	Trademark Plumbing & Gasfitting Pty ltd	NT	Employers/ Industry	Certificate III in Plumbing
Richard Harris	CBOS	TAS	Regulators	Certificate IV Plumbing and Services
Brett Humble	North Metro Tafe	WA	RTOs	Certificate III in Plumbing

Name	Company	Jurisdiction	Type of stakeholder	Component
Trevor bullock	North Metro Tafe	wa	RTOs	Certificate III in Roof Plumbing
Grant Jones	Streamline Plumbing and Roofing	NSW	RTOs	Certificate III in Plumbing
Tony Backhouse	Loftus Plumbing	NSW	Employers/ Industry	Certificate III in Plumbing
Steven Skordas	North Metropolitan TAFE	WA	RTOs	Certificate III in Roof Plumbing
Adrian Clarke	Canberra Institute Canberra (CIT)	ACT	RTOs	Certificate III in Plumbing
matty	Town and country plumbing	NT	Employers/Industry	Certificate III in Plumbing
J Maclean	Gold Medal Services (NT) Pty Ltd	NT	Employers /Industry	Certificate III in Plumbing
Grant Burton	GSB Plumbing	NT	Employers/ Industry	Certificate III in Plumbing
Damon Kreis	TAFESA	SA	RTOs	Certificate III in Plumbing
Robert Tiele	Snowgum plumbing and gas	NSW	Employers/ Industry	Certificate III in Plumbing
Michael burn	TAFE NSW	NSW	RTOs	Certificate II Drainage
Jackson Carney	Affordable plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Jed	Nambucca Plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Cooper Lewis	Crossinghams plumbing service	NSW	Learners and Employees	Certificate III in Plumbing
Ian	JD Plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Alex Franco	All Plumb and Gas	NSW	Learners and Employees	Certificate III in Plumbing
Jack	Todd reading plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Geoff Wallace	Port Plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Ben Spencer	Rogers Plumbing	NSW	Learners and Employees	Certificate III in Plumbing
Leonard Redfern	GOTAFE	VIC	RTOs	Certificate IV Plumbing and Services

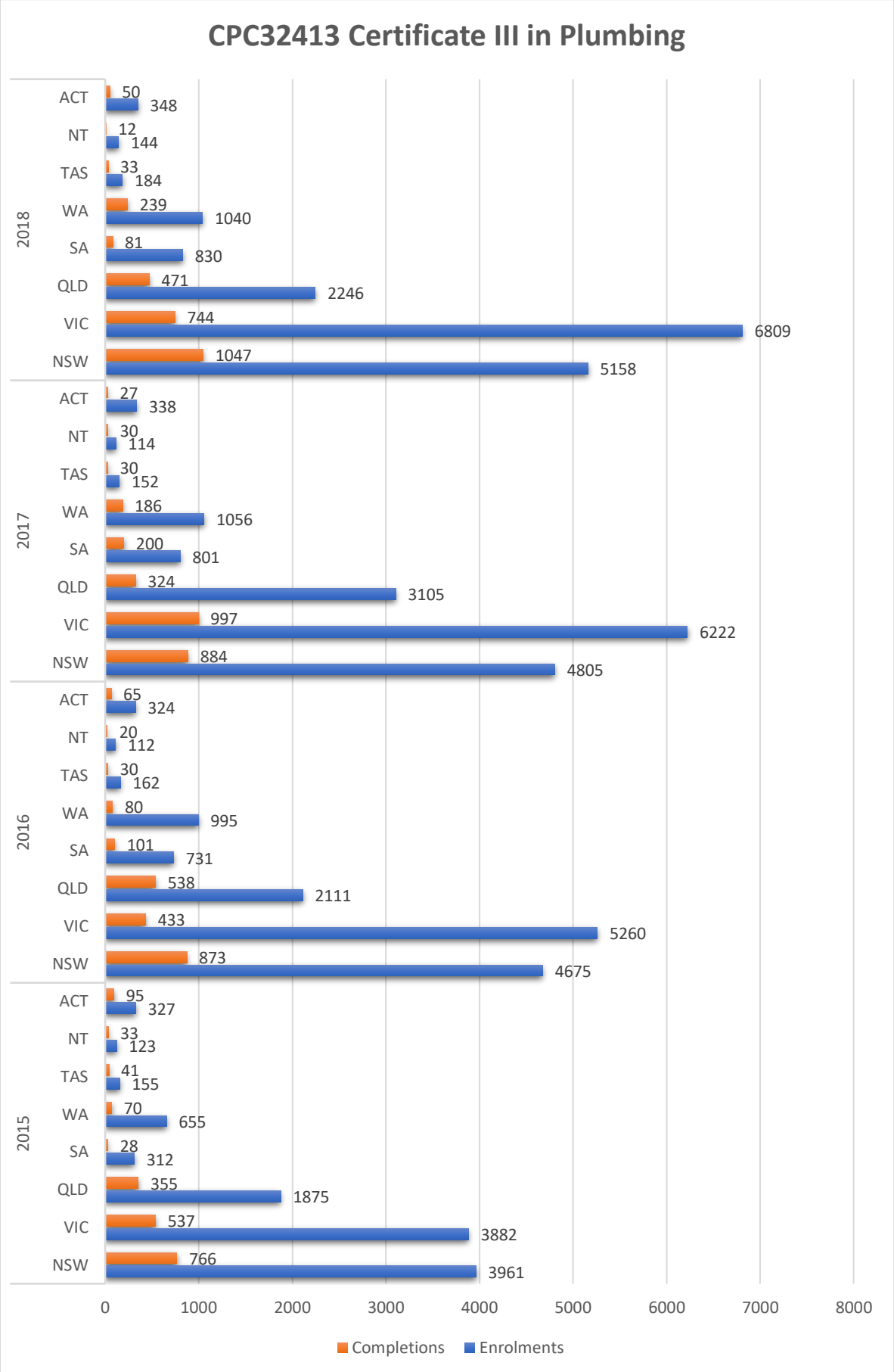
Name	Company	Jurisdiction	Type of stakeholder	Component
Anthony Willis	Gimbal Training	NSW	RTOs	Certificate III in Roof Plumbing
Ben Freer	CR TAFE	WA	Other	Certificate III in Plumbing
Michael Overeem	Overeem Gas & Plumbing	Tasmania	Employers/ Industry	Certificate III in Plumbing

Appendix E: Enrolment and completion figures (2015-2018)

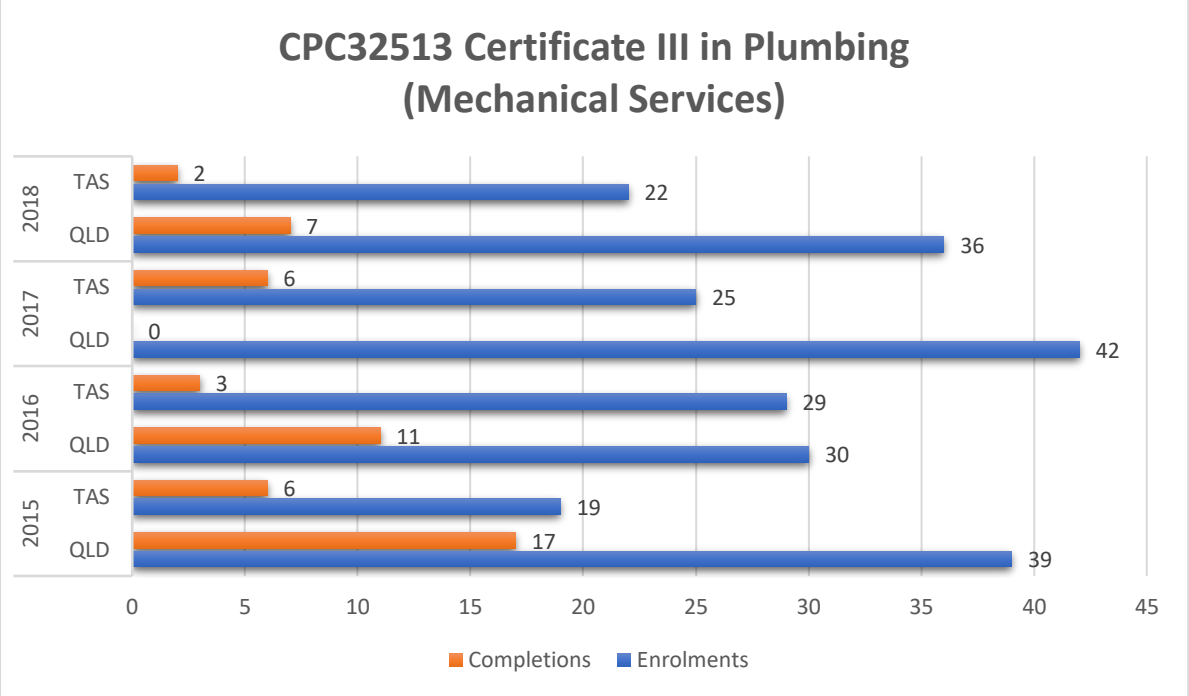
CPC20712 Certificate II in Drainage



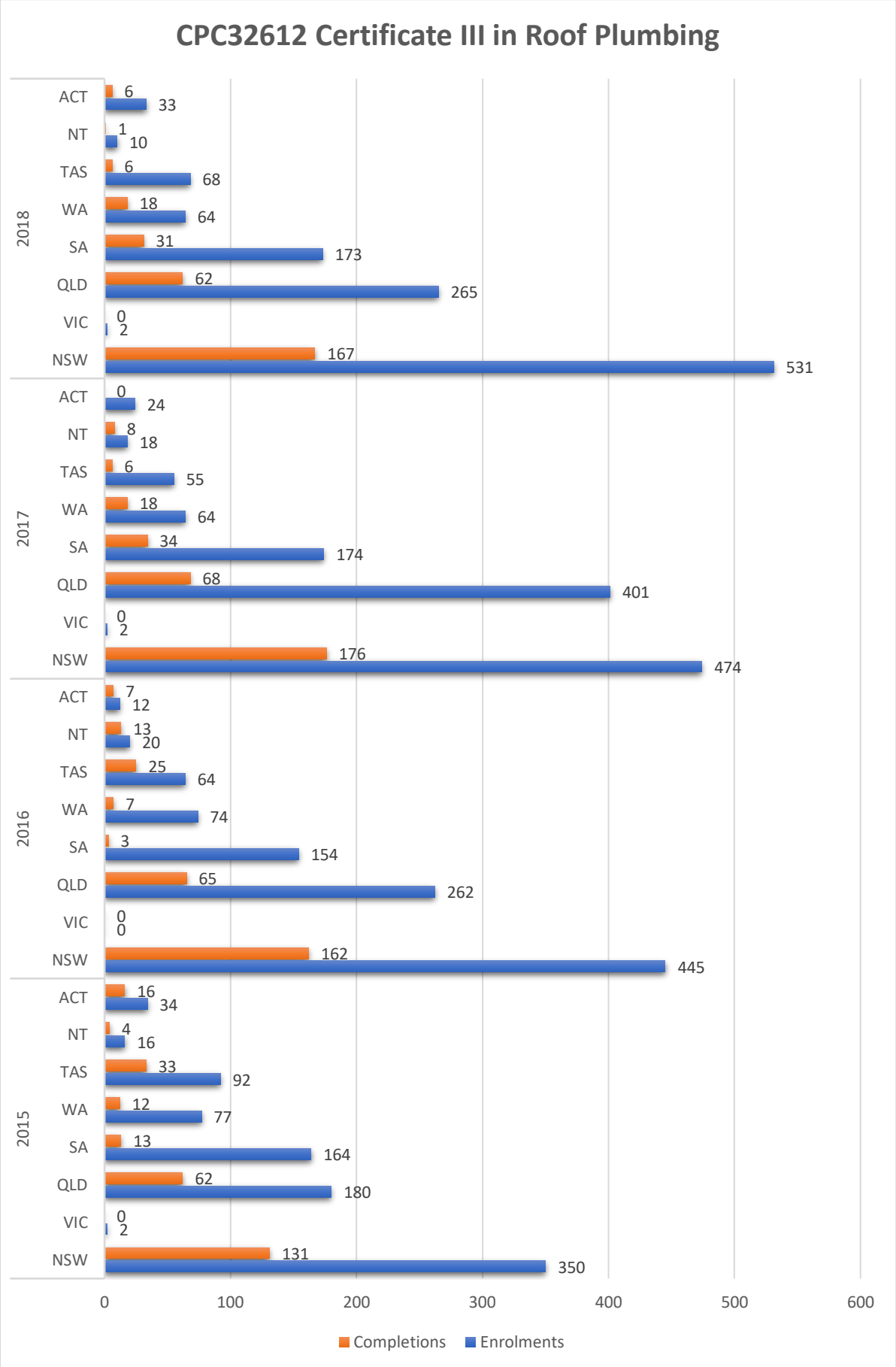
CPC32413 Certificate III in Plumbing



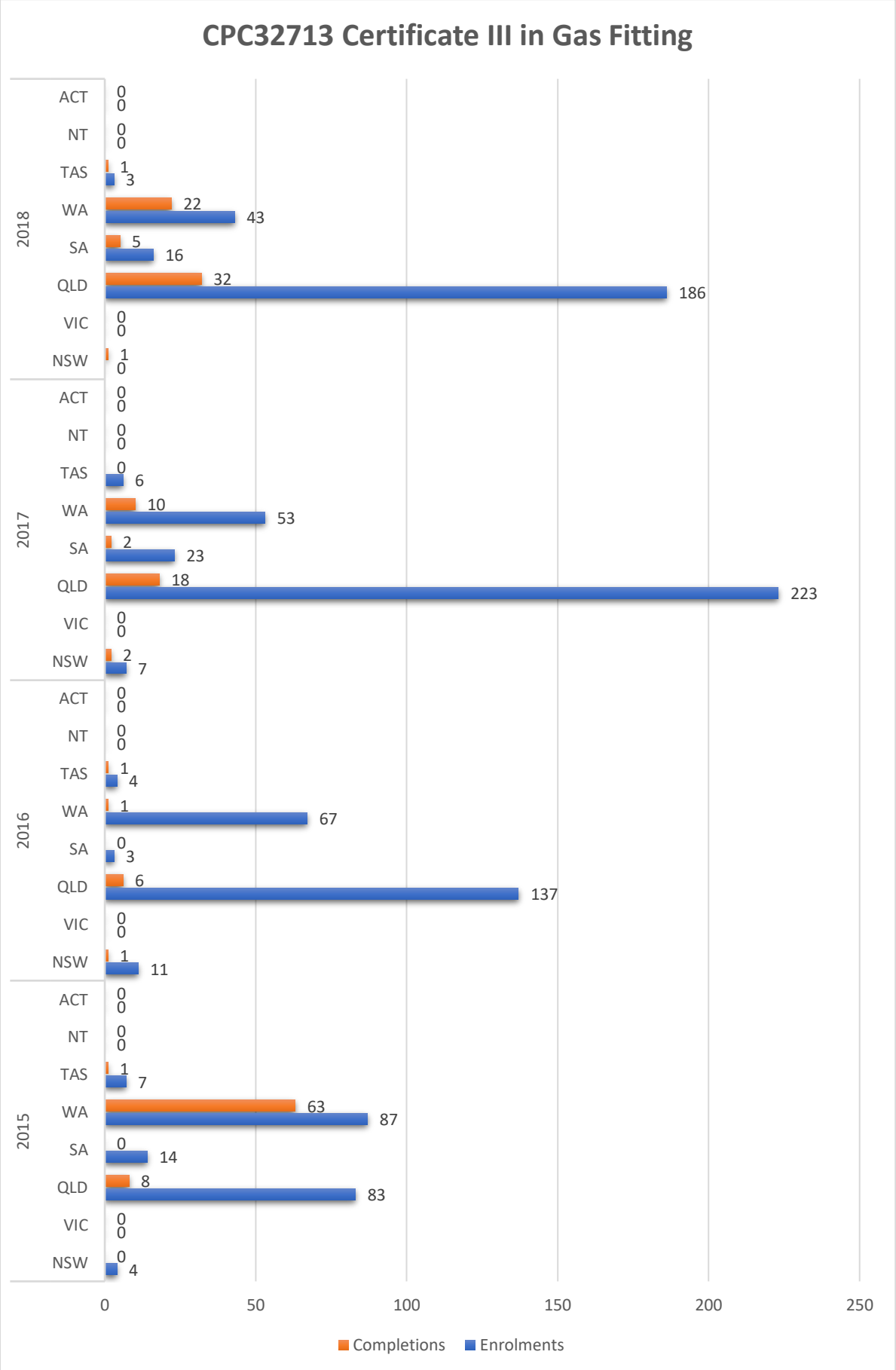
CPC32513 Certificate III in Plumbing (Mechanical Services)



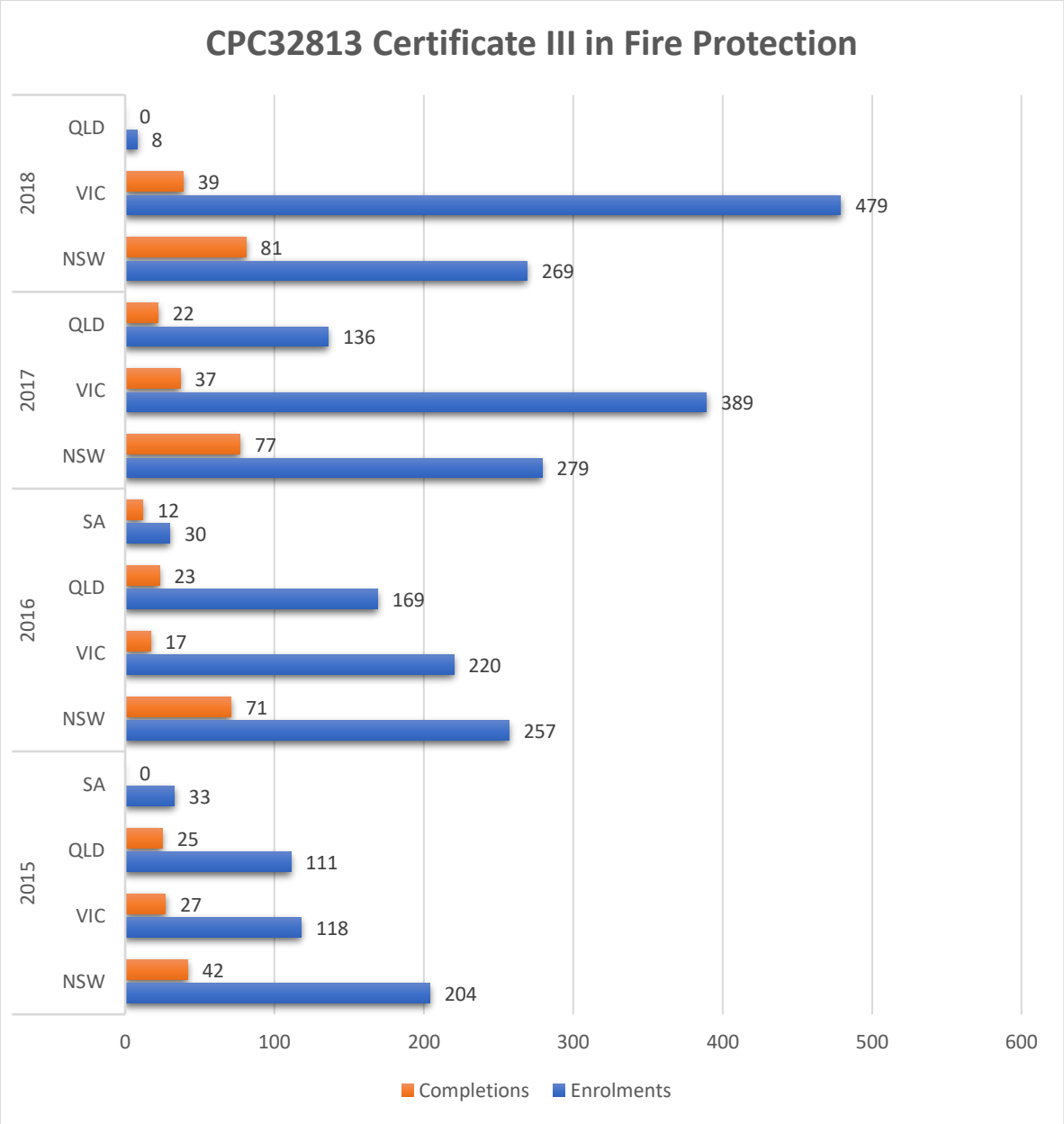
CPC32612 Certificate III in Roof Plumbing



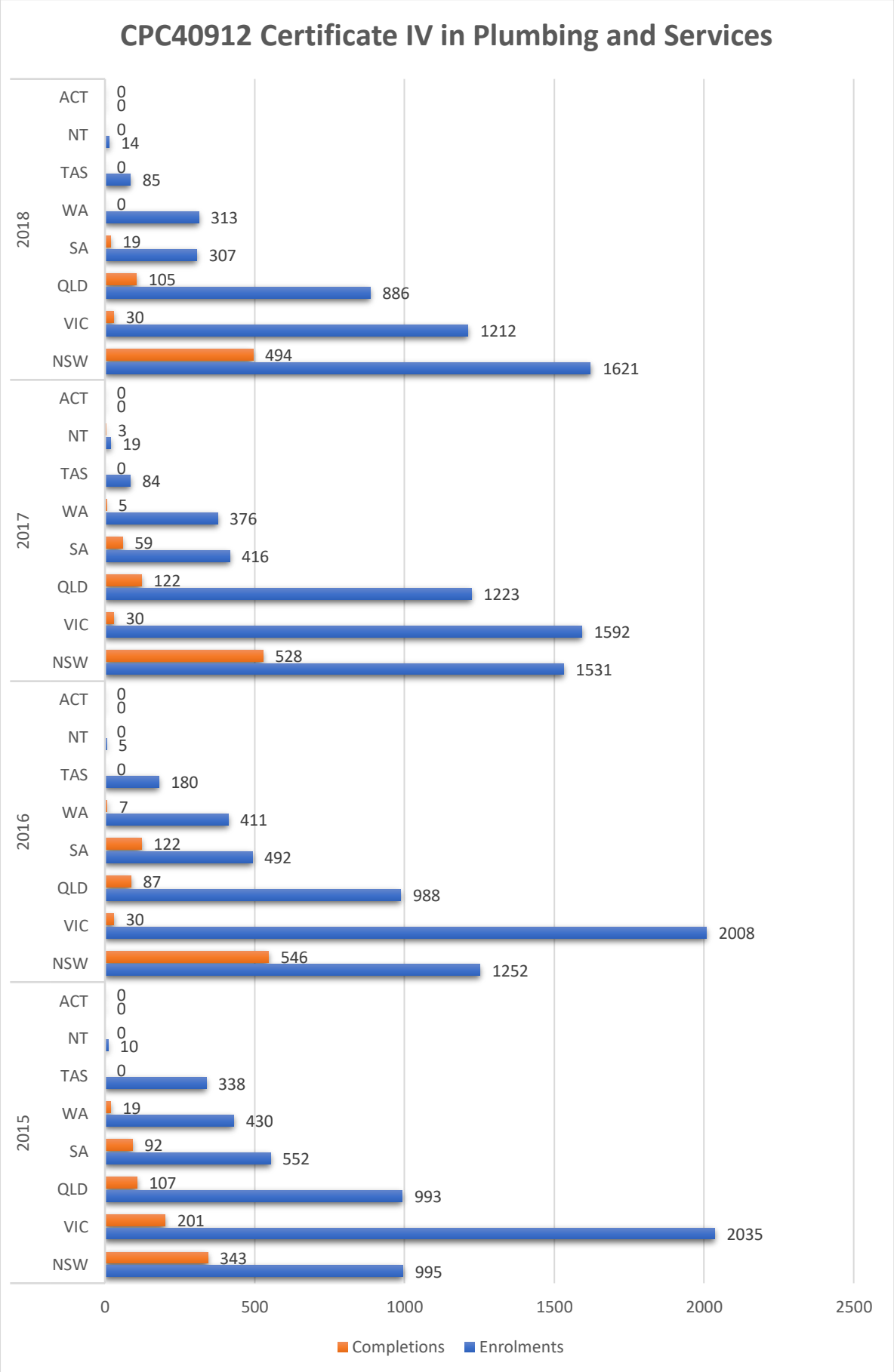
CPC32713 Certificate III in Gas Fitting



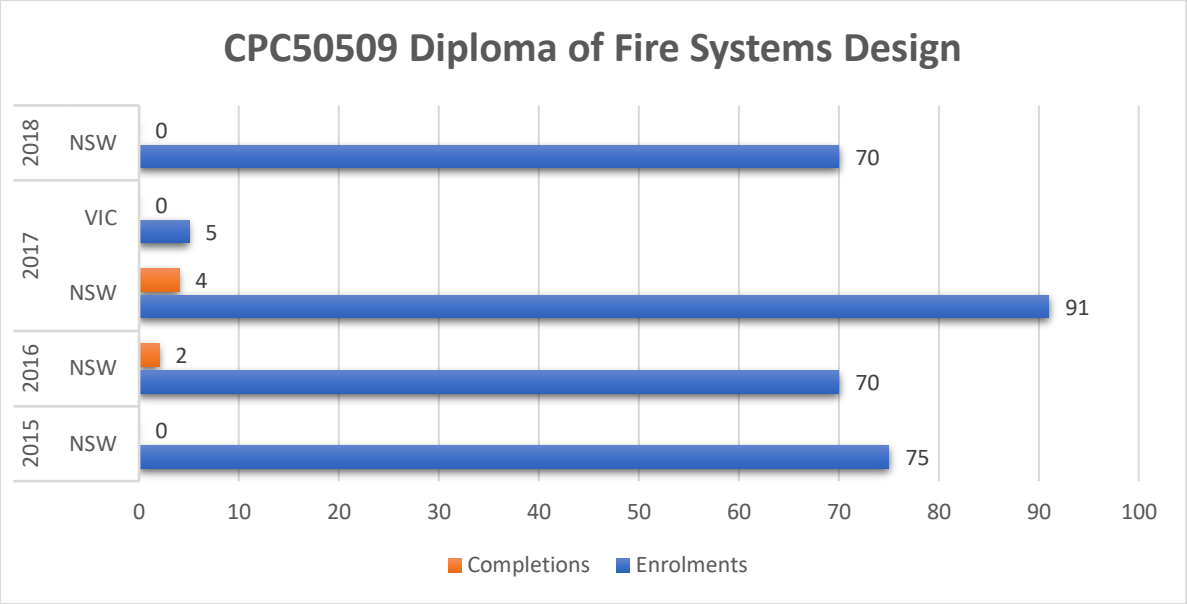
CPC32813 Certificate III in Fire Protection



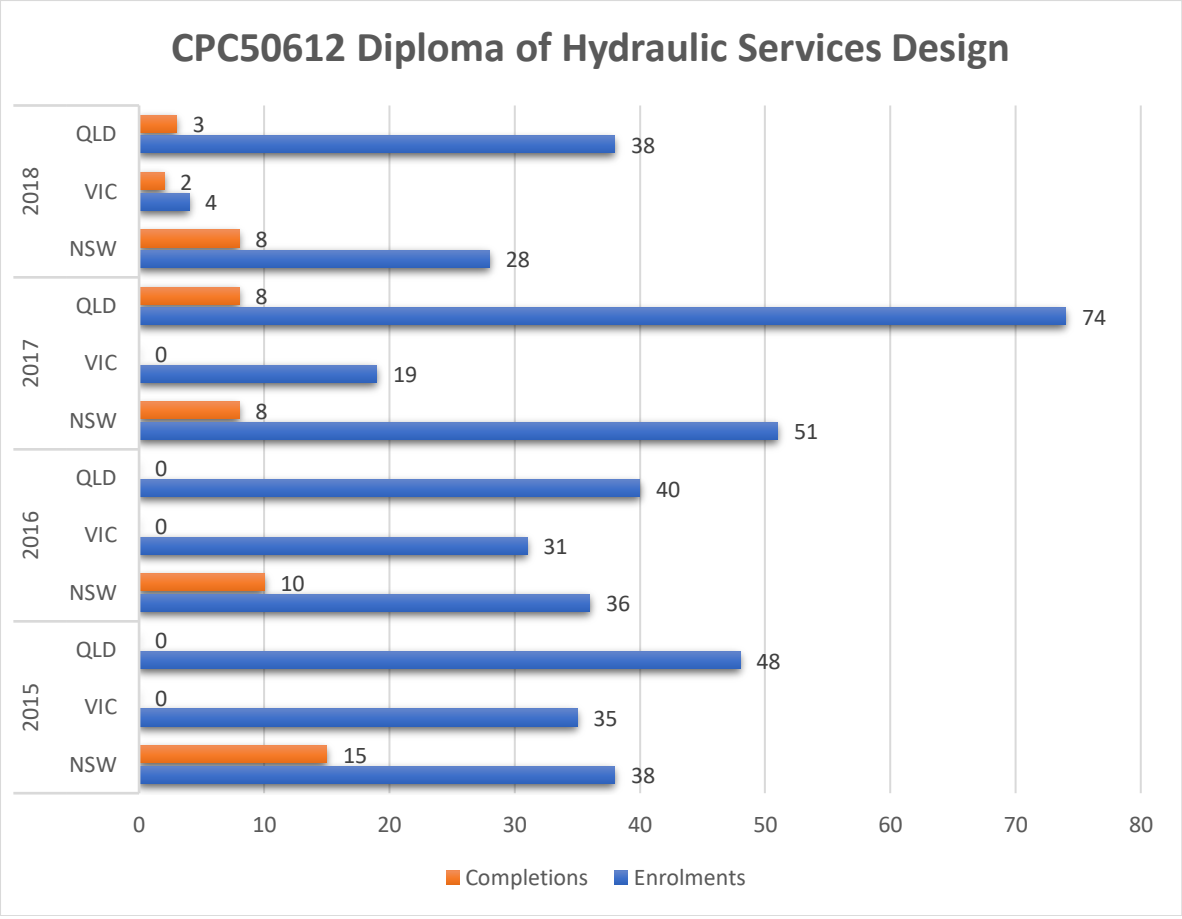
CPC40912 Certificate IV in Plumbing and Services



CPC50509 Diploma of Fire Systems Design



CPC50612 Diploma of Hydraulic Services Design



Appendix F: Letters of support

MASTER PLUMBERS ASSOCIATION OF NSW™

" Serv in g the nation for over 100 yea rs"

13 March 2020

David Morgan

Email: david@artibus.com.au

Chair, Industry Reference Committee, Plumbing and Services Training Package

I write on behalf of the Executive Committee of the Master Plumbers and Mechanical Contractors Association of NSW (MPA NSW), Master Plumbers Apprentices Ltd (MPAL) and MPA Training (MPAT). I hold the position of Chief Executive Officer for all three organisations.

I am the nominated representative of Master Plumbers Apprentices Ltd, and Master Plumbers NSW on the Plumbing and Services Training Advisory Group (TAG) .

I was previously a member of the CPSISC Council and Chaired the Continuous Improvement Committee for the Plumbing Certificate Ill for some eight years before the CPSISC was closed down.

MPA NSW and MPAL initially had some concerns in respect of the consultation process for the TAG due to the representative structure of the Committee. Our belief was that the composition of the TAG did not have enough representatives from industry and that the process would not have the consultation structure as had been the case under the CPSISC model.

We make no apology for the fact that we totally opposed the deletion of the "stream" structure in the Certificate Ill in Plumbing. The view being that no case had been enunciated for the deletion of the streams and the new structure was administratively driven and not industry driven.

This has been the position advocated throughout the deliberations of the TAG and notwithstanding the streams have been deleted, the industry methodology of delivering the stream can still be delivered within the new structure and MPAT will deliver the qualification in that way.

Initially, I was disappointed that although there was a great deal of discussion about new practices in plumbing, only four (4) new competencies have been incorporated into the package and three (3) of those competencies were initiated by MPA NSW.

I have been a vocal participant in the TAG and the consultation and forums held on the development of the new package.

THE MASTER PLUMBERS & MECHANICAL CONTRACTORS ASSOCIATION OF NSW

2 Percy Street, Auburn, NSW 2144 PO Box 42 Lidcombe, NSW 1825 Ph: (02) 8789 7000 Freecall: 1800 424 181
Fax: (02) 9749 7881 Email: info@masterplumbers.com.au Web: www.masterplumbers.com.au
ABN 64 040 939 175

I am respectful of the Artibus management for their support and recognition of the expertise on the TAG and whilst debate was robust the process to gain industry support was fully supported.

The final draft of the training package is a compromise, but in saying that it will meet the needs of the plumbing industry in protecting the health and safety of the Australian community by delivering strong relevant training to apprentices and new entrants to the industry.

The Master Plumbers Association of NSW and Master Plumbers Apprentices Ltd support the proposed case for endorsement and MPA Training will commence preparation to deliver the new training package in due course.

Yours sincerely,

Paul Nayl OR
Chief Executive Officer

MasterPlumbersNSW
Master Plumbers Apprentices Ltd
MPA Training

The Institute of Plumbing Australia Incorporated

Founded 1954
ABN 93 721 622 941

P O Box 2005
Marmion WA 6020

FAX: 08 9448 0420
EMAIL: secretary@plumbing.org.au
WEB: www.plumbing.org.au

19 December 2019

Artibus Innovation
373 Elizabeth Street
North Hobart TAS 7000

Attention: David Morgan

Dear David

The Institute of Plumbing Australia Inc. is a professional institute that promotes and supports higher educational and technological understanding within the plumbing profession for the benefit of the public in general. Our membership covers the wider scope of what is plumbing both nationally and internationally.

I would like to advise the IRC that we have been more than happy with the consultation process that has engaged with all sectors of our industry over the two year training package development activity.

My role in relation to this review has been TAG member providing specialist input and advice in relation to plumbing training (trade and post trade) qualifications. My membership has also participated in the forums, surveys and working groups providing feedback into the new training package.

I believe the units are relevant to what happens in industry and they all have achievable outcomes for the learners. From what I have read the units and qualifications are ready for endorsement.

The Institute supports the proposed case for endorsement and look forward to its early implementation.

Yours sincerely,

Tim Peach MIPA AHSCA (Associate) PL7759
Institute Councillor – Education and Training

Member ALL STATES, TERRITORIES AND INTERNATIONAL AFFILIATES.

22 January 2020

TO WHOM IT MAY CONCERN

Building the Plumbing
Workforce of the Future

The Plumbing Industry Climate Action Centre (PICAC) is an industry partnership supported by the Plumbing and Pipe Trades Employees Union, Master Plumbers and Mechanical Services Association of Australia, National Fire Industry Association and the
Air Conditioning and Mechanical Contractors Association. These are all the peak stakeholders in the plumbing industry.
PICAC has industry led training facilities in Victoria (Brunswick, Geelong and Narre Warren), New South Wales (Lidcombe) and Queensland (Beenleigh and Brendale).

I would like to advise the IRC that PICAC stakeholders have been more than satisfied with the consultation process that has been engaged with all sectors of the industry over the two year training pack development activity.

My role in relation to this review has been as a member of the Plumbing and Services Technical Advisory Group, providing specialist input and advice in relation to the training packages developed. PICAC Stakeholders also participated in the forums, surveys and working groups, providing feedback into the new training package.

I believe the units are relevant to what happens in industry and they all have achievable outcomes for the learners. It is my belief that the units and qualifications are ready for endorsement.

PICAC supports the proposed case for endorsement and looks forward to its early implementation.

Yours sincerely

Shayne La Combre
Chief Executive Officer

Unit 6/306 Albert Street
Brunswic k VIC 3056

T +61 3 9356 8902 F +61 3 9356 8929
E info@picac.v1c.edu.au www. picac vic.edu.au

(www.facebook.com/PICACaus www .twitter.c om/PICACaus

National Fire Industry Association
Australia
Contractors at the Frontline of Fire Protection

PO Box 403, Petrie QLD 4502
TEL +61 7 3882 2273 • FAX +61 7 3882 3933 • EMAIL info@nfia.com.au
nfia.com.au

Wednesday 18 December 2019

Re: Fire Protection & Plumbing qualifications review from the Construction & Plumbing Services Training Package

The National Fire Industry Association of Australia (NFIA) is an Australia-wide community of commercial fire protection contractors, their people, suppliers and industry stakeholders representing a wide and varied membership from the smallest sub-contractor through to large Australia-wide design, install and service businesses. NFIA represents the majority of contractors who are at the frontline of performing this work in Australia.

I would like to advise the IRC that NFIA's representatives on the Construction IRC and the Plumbing & Fire Services TAG have been satisfied with the consultation process that has engaged with all sectors of our industry over the two-year training package review development activity.

My participation and role in relation to this review has been through my staff providing specialist input and advice in relation to fire protection. My membership has also participated in the forums, surveys and working groups providing feedback into the new training package.

NFIA believe the units are relevant to what happens in industry and they all have achievable outcomes for the learners. From what I have read the units and qualifications are ready for endorsement.

NFIA supports the proposed case for endorsement and look forward to its

implementation. Kind Regards

Wayne Smith

Chief Executive Officer National Fire Industry Association, Australia

PO Box 403, Petrie Qld 4502

phone: 07 3882 6924; 07 3882 2273
fax: 07 3882 3933
mobile: 0418 736
371 email:
wsmith@nfia.com.a
u

10 January 2020

David Morgan
Chief Executive Officer
Artibus
david@artibus.com.au

Dear David

New Plumbing qualifications: letter of support for consultation process

The Victorian Building Authority (VBA) is the regulatory body responsible for the registration and licencing of plumbing practitioners in Victoria. The VBA is also responsible for plumbing inspections and audits of plumbing work carried out in Victoria. In addition, the VBA also provides plumbing practitioners with technical support and advice.
I would like to advise the IRC that we have been more than happy with the consultation process that has engaged with all sectors of the plumbing industry over the two year training package development activity.

Victorian registration and licencing
To become eligible to apply for registration, Plumbing apprentice graduates must successfully complete their:

1. Apprenticeship
2. Units of competence prescribed by the VBA for the classes that they wish to apply for
3. The VBA 'journeyman' exam for each class they wish to apply for (typically completed in their final year)

To become eligible to apply for licencing, Certificate IV in Plumbing graduates must successfully complete the following for each class that they wish to apply for:

1. Units of competency prescribed by the VBA
2. The VBA licencing exam

- *VBA exams are conducted by qualified VBA Plumbing Examiners are separate to assessments for Units*
- *Persons may have also completed a short course of prescribed Certificate IV Units if they are only seeking registration in specific units*

The VBA's role in the consultation process

I was the VBA representative on the TAG. My role in relation to this review was to provide specialist input and advice in relation to Victorian regulatory matters including:

- Victorian plumbing practitioner licencing and registration matters
- Common quality and compliance plumbing issues identified by our inspection and audit teams
- Common questions that our Plumbing Technical and Regulatory teams get asked
- Plumbing work that falls under the Victorian plumbing regulatory framework
- Sharing VBA research into key plumbing issues
- Weaknesses and strengths that we have identified in the current package that we identify from VBA exam analysis – specifically these included:
    - A need to strengthen gas units around consumer health and carbon monoxide testing and introduce more robust examination practices
    - A need to substantially strengthen the underpinning knowledge of the regulatory framework and design work relating to performance solutions

I have also participated in forums, surveys and working groups providing feedback into the new training package.

I am pleased to confirm that Artibus actively reviewed all VBA feedback and the majority of VBA recommendations were included in the new training package.

I believe the units are relevant to what happens in industry and they all have achievable outcomes for the learners. From what I have read the units and qualifications are ready for endorsement.

The VBA supports the proposed case for endorsement and look forward to its early implementation.

Should have any question or required further clarification

Please feel free to contact me directly on 03 9618 9440 or by email on Jennifer.mason@vba.vic.gov.au .

Yours sincerely

Jennifer Mason
Senior Policy Adviser, Education and Training
Jennifer.mason@vba.vic.gov.au

02/07/2019

Dear Artibus,

I am very happy that you have developed a UoC for heritage roofing.

These skills were going to become lost without this initiative being included in the construction industry training package (plumbing)

Regards,

Mark Ashton
Plumbing Contractor and Industry Trainer
Phone 0448 345 233

Appendix G: TAG response to National Fire Protection Association Australian submission

Content of submission	NFIA, MP and PPTEU Response
Fire Protection Association Australia (FPA Australia) are aware that the Construction IRC has finalised the update of various plumbing and fire protection qualifications that are in the process of being submitted to the AISC for endorsement.	
This letter is to advise that the fire protection industry does NOT support the endorsement of the Certificate III in Fire Protection and the Certificate III in Plumbing.	Artibus have received letters of support from the nations peak plumbing and fire protection employee body (The Plumbing & Pipe Trades Employees Union), employer fire protection industry association (The National Fire Industry Association) and Master Plumbers Australia.
FPA Australia is Australia's peak industry body for fire protection. Our Vision and Purpose is to create a safer community where loss of life, injury and damage to property and the environment are eliminated through effective fire protection delivered by a world-class fire protection industry. We recognise that a fundamental component to achieving this outcome is the establishment and delivery of high-quality education and the development, maintenance and recognition of professional competence and conduct.	FPA Australia is not the sole industry body for Fire Protection in Australia. NFIA stands together with their members who work at the frontline of fire protection in Australia National Fire Industry Association (NFIA) is the peak national industry association delivering systemic advocacy for fire protection contracting companies. NFIA is an Australia-wide community of commercial fire protection contractors, their people, suppliers and industry stakeholders representing a wide and varied membership from the smallest sub-contractor through to large Australia-wide design, install and service businesses. NFIA members work at the front line of fire protection with an estimated 80 per cent of the commercial fire protection work undertaken in Australia completed by members of NFIA. NFIA‘s VISION is of an Australian world-leading fire protection industry that ensures every Australian remains safe from the devastating effects

Content of submission	NFIA, MP and PPTEU Response
	of building fires. NFIA's MISSION is to partner with our members to realise that vision by: • Improving the training of our fire protection workforce across all aspects of fire protection safety; • Providing essential business and technical advice, resources and education; • Developing and nurturing mutually beneficial relationships and strategic alliances; • Advocating for continuous improvement to Government policy and legislation; • Advocating for continuous investment by industry in research and development; and • Promoting the improved professionalism of the industry. Association members include contracting firms specialising in design, installation, testing, maintenance of fire protection systems as well as suppliers and manufacturers. NFIA is full-on, hands-on cohort of contractors, their suppliers and supporters who are passionately committed to improving the industry.
FPA Australia is concerned that the peak industry body, and by association the fire protection industry has largely been ignored and disrespected throughout the development of the updated qualifications.	The review process established and maintained significant and extensive consultation with fire protection professionals, contractors as well as their representatives, key stakeholders and training providers. FPA is a member of the TAG.
More concerning is that the development of the updated qualifications has been inappropriately influenced by organisations which dominate delivery of two of the updated qualifications and therefore issues of impartiality and self-interest come in to question.	It is best practice to consult with providers of the qualifications under review. A process which did not undertake this work would be questionable.

Content of submission	NFIA, MP and PPTEU Response
	FPA Australia, NFIA and the two, current, Certificate III in Fire Protection providers (Fire Industry Training & TAFE NSW Randwick) in Australia met across 2 days in February/March 2019 with an ARTIBUS technical writer to review the units of competency and all parties reached agreement as recorded by the technical writer and presented in public consultations throughout 2019. Neither RTO that currently delivers the Certificate III in Fire Protection in Australia were on the TAG. Involving both RTO's in the consultation process and working group with a technical writer and the two fire protection industry associations mitigated any issues with impartiality and self interest
In addition to concerns regarding treatment of our contribution, we note that the proposed Certificate III in Fire Protection includes units of competency that form part of the updated Certificate II / III in Fire Protection Inspection and Testing, to which the AISC has implemented a process to resolve differences of opinion between the Property Services IRC and the Construction IRC.	The current certificate III in Fire Protection CPC32813 also contains units of competency from the Property Services training package minimising the unnecessary duplication of units.
It is our view that it would be highly inappropriate for the Certificate III in Fire Protection to be endorsed without considering the overall fire protection qualification endorsement process, including how this qualification and more specifically units within this qualification are suitable for inclusion in the updated Property Services Training Package.	

Certificate III in Fire Protection

Content of submission	NFIA, MP and PPTEU Response
The draft qualification includes units of competency from the draft Fire Protection and Safety Measures (Routine Service) qualification that are yet to be endorsed by the AISC. Namely the following units are not yet endorsed: o CPPFPSM3140 Conduct monthly service of fire detection and alarm and emergency warning systems; and o CPPFPSM3167 Conduct routine service of fire detection controls for fixed installed special hazard systems	
The units listed below are part of the ongoing dispute between the Property Services IRC and the Construction IRC as to their suitability for inclusion in the updated Certificate II / III in Fire Protection and Safety Measures (Routine Service). The proposed draft units are not acceptable to the Property Services IRC or the fire protection industry and therefore we do not support these units being established in their current form. o CPCPFS3040 Conduct limited routine service of water-based fire-suppression systems o CPCPFS3041 Conduct limited routine service on fire pumpsets o CPCPFS3042 Conduct annual routine service of complex water-based fire-suppression systems o CPCPFS3043 Conduct functional water flow testing	On 22-23 July 2019 there was a meeting in Brisbane to discuss the ongoing disputation of the two CPP Fire Protection Inspect & Test qualifications. There was a follow up meeting on September 24 2019 Canberra attended by: Stuart Maxwell (Chair, Construction, Plumbing and Services IRC) Noel Hamey (Chair, Property Services IRC) Brett Schimming (AISC member) Adam Luckhurst (Assistant Secretary, Industry Advice Branch) Jennifer Hayes (Director, Industry Advice Branch) At this meeting it was determined that: • it would be premature to update the Certificate III qualification until there is an industry agreed position on the job role and that as a result, the current Certificate III in Fire Protection, Inspection, and Testing should be transitioned only. o Transition in this context means transitioning the current training components on TGA to the 2012 Standards and making any necessary updates to address changes in

Content of submission	NFIA, MP and PPTEU Response
	regulatory or legislative requirements, industry practice, and tools, material and equipment. *The above dot points were extracted from the official meeting notes which should be considered in its entirety. The official notes from each meeting can be provided. Additionally, FPA Australia, NFIA and the two Certificate III in Fire Protection providers (Fire Industry Training & TAFE NSW Randwick) in Australia met across 2 days in February/March 2019 with a technical writer to review the units of competency and all parties reached agreement as recorded by the technical writer and presented in public consultations in 2019. This adoption reflects that agreement.
Insufficient knowledge and understanding of the operational design characteristics of fire sprinkler and fire hydrant systems o Overall the qualification does not include sufficient knowledge and skills of the fundamental operational principles and design elements of fire sprinkler systems and fire hydrant systems as specified in relevant Australian Standards referenced in the Building Code of Australia. o FPA Australia made a submission on the need for these changes to be incorporated in the updated qualifications; however, this was rejected by the sole RTO on the committee who currently delivers this qualification without providing any supporting evidence.	There are not any RTO's that deliver the CPC 32813 Certificate III in Fire Protection on the Plumbing & Fire Services TAG. It is unclear what this refers to. Any and all proposed changes were addressed by the TAG with input from industry who are represented on the TAG by members of both associations. FPA is the only asset maintenance/fire protection RTO on the 'TAG'. *Response assumes this is referring the unit CPCPFS3037. Following consultation with the TAG members representing the plumbing industry it was determined that the most appropriate unit is CPCCWT3030 Install home sprinkler systems. The two proprietary systems referred to in the NCC2019 are not referenced in any Australian Standard.

Content of submission	NFIA, MP and PPTEU Response
	On the 3rd of December 2019 NFIA submitted a response to ARTIBUS in relation to suggested unit changes made by the FPAA to unit CPCPFS3037. These changes were included in the TAG meeting papers for the 13 December 2019 meeting and the changes were accepted by the TAG at that meeting for both the CPCPFS3037 Install residential life safety sprinkler systems and the unit CPCPWT3030 Install home fire sprinkler systems. The December 13 minutes have recorded that acceptance for the CPCPFS3037 unit, acceptance of the CPCPWT3030 unit was not recorded however it was agreed at the same time. NFIA will note that at the 13 February 2020 TAG meeting. On December 10 2019 ARTIBUS replied to an email from NFIA writing that they had yet to receive a reply from FPAA to the NFIA response.
o Many of the units included in the qualification have remained virtually unchanged for several decades despite regulatory and industry evolution. In the case of the fire hydrant system unit of competency, only extremely minimal knowledge around basic design elements of these systems is required. o The fire sprinkler system units include method for sizing pipe work that has been deleted from the current revision of the relevant Australian Standard as this method has long been replaced with the much more efficient and powerful software method. o The argument by those who vetoed changes recommended by FPA Australia was that they preferred to "keep apprentices in the dark" with respect to learning new and useful methods of design, as this was somehow outside of the scope of the AQF. Their position was that the guidelines of the AQF would require that inclusion of performance evidence related to aspects of design could only be included in a Certificate IV or higher qualification. o The problem with this approach is that it is not reflective of the modern day industry, whereby installers of fire sprinkler systems, and to a lesser extent hydrant systems, are required on a daily basis to recognise issues that commonly arise on site during installations.	The construction training package which includes both Plumbing and Fire Protection qualifications acknowledge that the qualifications are delivered as part of an Apprenticeship and thus the training at Certificate III level does not inherently include design but acknowledges the apprentices` role to work from provided information, i.e. under supervision. The current design unit, CPCPFS3030A, references a simplified design methodology which uses pre sized pipe charts. Whilst this methodology is not referenced in the latest Australian Standard it gives the apprentice the fundamental understanding of pressure and frictional loss incurred by movement of water through pipework and the limitations surrounding this. To introduce fully hydraulically calculated design at a certificate III level is inappropriate and well beyond the AQF level requiring an apprentice to learn various laws of physics and complex equations. It also requires a sound knowledge of computers and their applications around Computer Aided Design. These units are available and are included as part of the certificate IV in Plumbing Services.

Content of submission	NFIA, MP and PPTEU Response
It is dangerous to oversimplify this situation by assuming that only a designer "designs", an installer "installs", and a certifier is capable of certifying every installed component and able to verify that such components are in accordance with the approved design. o The reality is that fire sprinkler installers regularly improvise and adapt to the inevitable variations that continually arise during construction. Sometimes the variations will require the designer to get involved, but it takes an installer with reasonable knowledge of design to identify an issue in the first place, otherwise there is a real risk that the performance of an installed fire sprinkler system may be significantly impacted. o Additionally fire sprinkler fitters are also regularly required to conduct modifications to sprinkler systems in buildings during building refurbishments. This work makes up a significant part of the job role. Most of this work is not designed by a qualified designer, rather a sprinkler fitter is expected to make the required modifications on site which demands a solid understanding of design requirements.	The AQF III level in both Plumbing and Fire Protection align with the knowledge requirement of "graduates at this level will have factual, technical, procedural and some theoretical knowledge of a specific area of work and learning" whilst the emphasis is on skill development in order to have a range of cognitive, technical and communication skills to select and apply a specialised ranges of methods, tools, materials and information to; o Complete routine activities o Provide and transmit solutions to predictable and sometimes unpredictable problems. The regulatory regime that supports the plumbing industry and fire protection industry, in jurisdictions where that exists, acknowledges the roles that graduates from both Certificate III qualifications carry out in industry, largely that they can install, repair, maintain and inspect these systems and that system design is set at Certificate IV and higher. The challenge of contextualising any training package to suit all industry environments and specific individual employers has always been an issue for many regulated industries such as Plumbing, Fire Protection and Electrical, where scopes of work are clearly identified. These are not always reflective of what happens for individual business operations. The employers in these areas have always accepted that there was a broad approach to training balanced with the scope to provide the trainees and employers with the ability to specialise the training to some extent. This creates a labour market that can move effectively within the industry without the need for wholesale re-training. The

Content of submission	NFIA, MP and PPTEU Response
	speed of change in the industry requires that the focus should be on broad base skill development.
Suitability of routine service units and their inclusion as core units in the qualification • The proposed qualification has relocated four units of competency that cover fire sprinkler and fire hydrant routine service work from electives to core units. This change is problematic for several reasons: • The majority of apprentices who undertake this qualification are employed by businesses who do not conduct routine service work on fire sprinkler systems and fire hydrant systems, rather their business is primarily / solely engaged in construction / installation type work. • As a result, the only exposure a student / apprentice would have to gaining the required skills and knowledge for routine service work is through the use of 'simulated equipment' installed at the training provider's premises. • Due to the complex nature of conducting routine service, development of the required skills and knowledge to perform this work at the level requested by industry requires a student to be exposed to a range of different systems and configurations, installed in a variety of locations and building types. • The Performance Evidence in the proposed versions of these units is not sufficient and fails to require broad knowledge and experience across multiple systems. • Allowing these units to be moved from electives to core will disadvantage students who cannot gain exposure to routine service work. This will result in RTO's not being able to properly assess students and will either result in students not being able to complete their qualification or worse, an RTO inappropriately recording a student as competent when they	Prior to the creation of The Australian Industry and Skills Committee (AISC) and Skills Service Organisations both the CPC and CPP training packages were managed by the Construction and Property Services Industry Skills Council (CPSISC). During a training package review it was identified by a major fire protection contractor that sprinkler fitters need to understand what is known as 'Minor Works' in the industry. This included adding in and embedding fire protection system interfaces and the relocation of sprinkler heads into three units, CPCPFS3045A, CPCPFS3046A and CPCPFS3047A. The additional content that was written into the units included specifying isolating systems interfaces, draining down, relocating sprinkler heads, conducting maintenance and pressurising and de isolating system interfaces in the then critical aspects of the unit and knowledge evidence was included around the aforementioned task. These parts have been retained in the proposed same units and agreed upon by all representatives of the working group tasked with reviewing them, which include both RTO's delivering the Qual, and NFIA representative and an FPAA representative. Post project completion the installing contractor is responsible for the routine service of the fire protection system for the first 12 months at a minimum. Therefore, routine service is part of every fire sprinkler contractor's business and every apprentice is part of the routine service of fire protection systems across a range of buildings.

Content of submission	NFIA, MP and PPTEU Response
clearly do not meet the industry's definition of competence and do not meet industry's requirements for job ready workers. Our view is that the routine service units should introduce a mandatory amount of on-the-job activity in the Performance Evidence, using the same model adopted by the Property Services IRC for the rest of the fire protection industry.	The experience and system wide understanding that comes from achieving all the Certificate III units of competency is important because: Plumbing or fire protection systems are a series of interlocking components and connections, each dependent on the other for the system to be effective, so to the Certificate III qualification represents the build-up of layered and inter-connected components of knowledge, competency and experience that has a value greater than the sum of all its component parts. To view the Certificate III as just the aggregation of the individual competencies is to be oblivious of how their interplay actually works, and not an appropriate construct in the fire protection context. Every apprentice spends over 5000 hours training on the job with a qualified sprinkler fitter. Before they complete any system Test & Inspect on their own they have already observed, been part of and experienced hundreds of system tests on systems ranging in size and age from large multi storey towers to smaller systems located in Aged Care facilities that have a different design and purpose and are equally complex in their own way in comparison to the system in the newest, highest tower in Australia. Inspect and Testers understand the systems they are checking; They can detect why a problem is occurring and not just the fact that it is occurring; Trade qualified people have the knowledge to fix the problem(s) detected; Small issues can be addressed before they become bigger ones, potentially saving building owners/occupants significant expense; and

Content of submission	NFIA, MP and PPTEU Response
	The building and its occupants will be safer as a result. The statement regarding 'A majority of companies don't do this work' is simply not true. The standard practice in industry, and therefore the majority of companies that employ qualified tradespersons, have a contracts division (installation of active fire protection systems), a minor works division, a faults/repairs division and a routine service division. A qualified sprinkler fitter is capable of undertaking any of the work contained in each division and the qualification CPC32813 represents this.
FPA Australia supports indentured training models for the fire protection industry; however, this is only suitable where students can customise a qualification to meet their training needs. o The fact that most students who enrol in this qualification perform construction related activities and not routine service activities supports the need for these units to be kept as elective units or removed from the qualification completely and included in the Property Services Training package where they rightly belong.	This has been addressed in the responses above.

Certificate III in Plumbing

Content of submission	NFIA, MP and PPTEU Response
• Insufficient depth of knowledge and skills for the installation of fire sprinkler systems • Industry concerns regarding the competency of plumbing contractors to install fire sprinkler systems has been raised in many forums throughout the years. • The revised training package has failed to enhance the skills and knowledge required for plumbers who undertake installation of life safety systems, specifically fire sprinkler systems. This becomes problematic for state and territory regulators, who recognise the need for enhanced competence, but are restricted to the use of nationally recognised qualifications to support state-based licensing systems. • The ideal opportunity to address industry's concerns is the current review of the Certificate III in Plumbing. Whilst the skills included in this qualification that cover the physical installation of a fire protection system are adequate, a significant concern for the fire protection industry is the very low level of knowledge of relevant industry standards covering the design and installation of fire sprinkler systems. The single relevant Unit of Competency included in the Certificate III in Plumbing includes practically no knowledge or understanding of the design and installation requirements for fire sprinkler systems. This has enabled a worryingly large percentage of the workforce to become licenced to install these systems while clearly lacking this essential knowledge. • The trend toward sprinkler systems being supplied by potable plumbing networks means that now more than ever, is the appropriate time to address this significant gap in knowledge and skills. It is imperative that the relevant unit of competency or additional units of competency are updated or created to include detailed knowledge of the installation and design requirements to make it comparable with the knowledge and skills	Following consultation with the TAG members representing the plumbing industry it was determined that the most appropriate unit is CPCCWT3030 Install home sprinkler systems. The two proprietary systems referred to in the NCC2019 are not referenced in any Australian Standard.

Content of submission	NFIA, MP and PPTEU Response
attained by Fire Sprinkler Fitters who complete the Certificate III in Fire Protection. • Several attempts to include this knowledge into the unit have been blocked by members of the Plumbing and Fire Services TAG without any justification for their position.	
• Failure to support national construction codes and jurisdictional occupational licensing • In addition to the issues raised above, all states and territories operate licensing systems that dictate the qualifications and experience requirements covering the installation of residential fire sprinkler systems. These licencing systems generally restrict work to fire sprinkler fitters and plumbers. • The National Construction Code 2019 (NCC 2019) introduced two new fire sprinkler standards for use in residential buildings. These two new standards are likely to be widely support by the development industry due to their significant cost savings when compared with alternative systems that comply with legacy standards. • The inclusion of skills and knowledge to cover the changes made to NCC 2019 are critical to support licensing systems and enhance confidence that licensed individuals have the appropriate skills and knowledge to undertake this work. It is imperative that the training package for fire and plumbing must evolve to include all referenced standards in the NCC and PCC related to fire sprinkler systems. • Failure to adapt the training package to reflect recent enhancements to the NCC is likely to lead to installation of these new systems to be conducted by unqualified tradespeople, which has the potential for life safety systems to be installed inappropriately. This may have a significant impact on the life safety of a building's occupants.	Statements have been included as knowledge in every applicable unit of competency and a specific unit of competency developed to meet performance solutions (draft taken from work in CPP) – this issue was also raised by the Victorian Building Authority and is considered resolved

Content of submission	NFIA, MP and PPTEU Response
• Throughout the development of these new standards and their adoption in NCC 2019, the National Fire Industry Association have been quite vocal in their lack of support for the new standards. They now appear to be trying to use their position of influence in the Construction IRC to veto the inclusion of the skills and knowledge required to install these new systems into the relevant training packages. This is an abuse of power and is something that government should not be entertaining. • Through their unofficial veto power, the NFIA are seeking to ensure that students are not able to gain the requisite skills and knowledge to install these new systems through the updated training package. This approach makes it increasingly difficult for the construction and development industry to apply the NCC provisions to suit their particular needs and forces them to select a fire sprinkler system that complies with a legacy standard. Interestingly this position just so happens to align with the type of work typically undertaken by businesses who make up NFIA's traditional member base, and for which the NFIA operate a lucrative training division. • The NFIA is clearly abusing its position on the Construction IRC and failing to support the development of training packages that respond to regulatory and industry requirements. This is solely a result of them having a fundamental objection to the new standards, despite them being extensively supported by all arms of government, including the Australian Building Codes Board, state fire services and state and territory building ministers.	The letter appears an attempt by the FPA to communicate their disappointment that the qualifications have not adopted the FPA developed systems called up by the NCC, changes to residential sprinklers that provide for connection to the drinking water supply. The issue is that it is unclear whether these are Deemed to Satisfy or Performance Outcomes and that they are not referenced in any Australian Standard. Either way access to these "systems" are via FPAA for a cost so suggestions that they should form part of the national training package would be a lucrative position for FPAA to take.

Appendix H: STA report by exception feedback

First round of feedback and correspondence

STA feedback and response

Item	STA	Feedback	Response
1	**VIC**	The Training Products Unit, in conjunction with Teresa Signorello, Curriculum Maintenance Manager Building Industries, have reviewed the Case for Endorsement for CPC Release 6.0. The Victorian STA is unable to support the Case for Endorsement proceeding to the AISC as there are considerable components that do not meet the Standards for Training Packages, which will impact on implementation, learners and workforce supply. Please see comments below:	The Training Package Components have been through an independent quality assurance and have deemed to meet the Standards for Training Packages. Funding and implementation have been considered throughout the project, these two factors are outside the scope of IRC and SSO.
2	**VIC**	Qualification Packaging rules and funding implications: The significant increase in the total units in the CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical) from 66 to 88 will be significantly challenging for Victoria to implement. Victoria has a high number of enrolments in the current qualification and the funding impact for this State Training Authority needs reconsideration.	Funding implications were considered throughout the project, these two factors are outside the scope of IRC and SSO. The *Training Package Development and Endorsement Process Policy* is that the CVIG provides 'industry advice about delivery' and that: • 'The Case for Endorsement must assure the AISC that mitigation strategies are in place to address implementation issues identified by states and territory governments and that best efforts have been applied to resolving all outstanding issues.' The *CPC32413 Certificate III in Plumbing* required units of competency from a minimum of four of the six streams, with Stream 1 and Stream 2 being mandatory:

<table>
<tr><th>Item</th><th>STA</th><th>Feedback</th><th>Response</th></tr>
<tr><td></td><td></td><td></td><td>
<table>
<tr><th>Stream</th><th>Core units</th><th>Elective units</th></tr>
<tr><td>Stream 1</td><td>24</td><td>5</td></tr>
<tr><td>Stream 2</td><td>6</td><td>4</td></tr>
<tr><td>Stream 3</td><td>9</td><td>3</td></tr>
<tr><td>Stream 4</td><td>4</td><td>11</td></tr>
<tr><td>Stream 5</td><td>8</td><td>4</td></tr>
<tr><td>Stream 6</td><td>12</td><td>5</td></tr>
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Consequently, the minimum units required could be 66:
• 42 core units
• 24 elective units.

The maximum units required could be 68:

• 51 core units
• 17 elective units.

However, when this qualification was endorsed in 2013, the qualification did not necessarily include prerequisite units of competency:

• ‘Some units in this qualification may have prerequisite requirements, which must be met when packaging the qualification. Users are referred to the list of CPC08 units with prerequisite unit requirements available in this Training Package for this purpose.’

The CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical) requires a minimum of 82 units, an increase of 16 units from the superseded qualification.

On the surface this may appear to be a large number of units for a</td></tr>
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Item	STA	Feedback	Response
			Certificate III qualification. Further analysis is required. The AQF states that: • 'The volume of learning of a Certificate III is typically 1 – 2 years. Up to 4 years may be required to achieve the learning outcomes through a program of indentured training/employment'. ASQA identifies that the volume of learning for a Certificate II qual is 1200–2400 hours and that where a Cert III is used as a 'basis for trade outcomes and undertaken as part of a traineeship or apprenticeship … up to four years may be required to achieve the learning outcomes'. A starting point to determine the volume of learning is the nominal hours attributed to units, for example, as identified in the Victorian Government purchasing guides. Refer to the nominal hours sheet in *CPC32420 Certificate III in Plumbing_Analysis_27April2020*: • based on superseded units and existing endorsed units, the **nominal hours** for the **44 core units** would be around **709 hours** • adding this to the nominal hours for 34 of the 38 elective units required for the *CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical)* sees the total units required range from **1182 to 1745 hours** • the **final total nominal hours** for the **82 units** would **depend on the 'Up to 4 elective units** may be replaced by units from any other group or from any relevant nationally endorsed Training Package or

Item	STA	Feedback	Response
			accredited course. The units must contribute to the vocational outcomes of the qualification.' To put this in some perspective, the *Victorian Purchasing Guide for CPC08 Construction, Plumbing and Services Training Package Version 9* states that the qualification nominal hours range for the *CPC32413 Certificate III in Plumbing* (page 6) is: • minimum of 1304 hours • maximum of 1864 hours. The sample training program in this *Purchasing Guide* appropriate for the mechanical and roofing sectors (pages 73–76) of **1433 nominal hours**. The *Victorian Government Skills First 2020 Funded Course List and Subsidies* document states that *CPC32413 Certificate III in Plumbing* is funded as an apprenticeship only in Victoria with the **maximum payable hours** being **1864 hours**. The maximum nominal hours for *CPC32420 Certificate III in Plumbing* for **78 units would be 1745 hours** and with the additional 4 elective units, potentially similar to 1864 hours (for example, 4 units of up to 30 hours each). Victoria states implementation challenges being: • a 'significant increase in the total units in the CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical) from 66 to 88' • 'the funding impact for this State Training Authority'.

Item	STA	Feedback	Response
			The increase is actually a little lower – 16 not 22. The Victorian Government currently funds the *CPC32420 Certificate III in Plumbing* to a 'maximum payable hours' of **1864 hours**. The *CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical)* would require at least **1745 hours** (+ hours for the remaining four elective units). The VIC STA would have determined how significant would the funding impact actually be.
3	**VIC**	You will be aware of the AISC decision (25 February 2020 Meeting) to not approve the Certificate III in Carpentry due to the excessive amount of units and potentially creating a barrier for the ongoing viability of the apprenticeship model. Has the SSO and IRC taken this decision of the AISC into account when proposing to increase the total units in the CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical)? Has the SSO and the IRC taken into consideration the funding implications for a qualification with 88 units of competency?	See above analysis. Please note that AISC decision on Carpentry was based on the lack of flexibility of the qualification not on the number of units required to award the qualification. Units of competency are not 'equal' in terms of scope, breadth, depth and nominal hours. The nominal hours sheet in *CPC32420 Certificate III in Plumbing_Analysis_27April2020* indicates: • 44 core units required for the *CPC32420 Certificate III in* Plumbing, equals around 709 hours • the total nominal hours for the current qualification would be fairly similar to the previous qualification, regardless of total unit numbers. See above point relating to funding.
4	**VIC**	Significant Nesting – not supported – questionable AQF integrity and implications for RTOs.	The AQF glossary of terminology states:

Item	STA	Feedback	Response
		• CPC20720 Certificate II in Drainage and CPC32620 Certificate III in Roof Plumbing remain almost fully nested within the CPC32420 Certificate III in Plumbing (General Plumber and Roofing) stream. • The work activity order Artibus/TPD/2016-17/007 has not been properly addressed. The AISC commissioned Artibus to address nesting of the CPC20712 Certificate II in Drainage. This is documented on page 6 of 142 of the Case for Endorsement and has not occurred	• 'Nested qualifications are qualifications that include articulated arrangements from a lower level qualification into a higher-level qualification to enable multiple entry and exit points. And that: • 'Integrated qualifications are purposely designed qualifications that enable explicit articulation pathways and encompass more than one AQF level and/or qualification type and/or education and training sector. The nesting qualification is an approach that better supports occupational pathways and aligns with the AQF Pathway policy. This concept of a qualification having 'multiple entry and exit points' would be supported by these AQF definitions. Support for this approach can also be evidence by the *Training Package Development and Endorsement Process*, which outlines the *Training Package Quality Principles* – Principle 4, Key Feature 10 could be said to support nesting: • 'Principle 4: Be flexible to meet the diversity of individual and employer needs, including the capacity to adapt to changing job roles and workplaces' • 'Key Feature 10: Support equitable access and progression of learners' • 'Provide multiple entry and exit points'. The AISC commissioned Artibus to review the (1) scoping study and its recommendations and (2) undertake further industry engagement to

Item	STA	Feedback	Response
			validate the recommendation and proceed with the review of the training packages components. The nesting issue was raised scoping study and then proceeded to be reviewed by the TAG for its industry currency and suitability.
5	**VIC**	Pre-requisite Chains • There appears to be no effort to minimise the use of pre-requisite units and this does not meet the Training Package Products Policy clause 2.2.2. • There is excessive use of pre-requisites in the CPC322420 Certificate III in Plumbing in which 40 core units have pre-requisites. • Prerequisite chains inhibit flexibility (specifically related to units of competency from the MEM and UEE Training Packages). Given the review of the Training Package and transition to the new Standards presented an opportunity to re-design the Training Package it is disappointing that this did not occur. It was an opportunity for the IRC and SSO to reduce the pre-requisite chains and redesign Units of Competency to include skills and knowledge from the pre-requisite chains. This would support flexibility, coherence, consistency and implementation.	The *Training Package Products Policy* states: • '2.2.2. Pre-requisite units must only be used where essential to **achieving the subsequent competency**. They must not be used for the purpose of driving delivery order or sequencing.' The *Training Package Products Policy* also states: • '2.2.1. A pre-requisite unit is a unit of competency in which the learner must be assessed as competent prior to the determination of competency in the subsequent unit.' The prerequisite sheet *CPC32420 Certificate III inPlumbing_Analysis_27April2020* indicates: 1. Core units • 40 of the 44 core units have prerequisite unit/s • the prerequisite units that are in the 40 units number **seven** in total 2. Safety – industry has determined that safety is 'essential to achieving the **subsequent competency**' (2.2.2. of the policy) • 39 of these 40 core units have *CPCPCM2043 Carry out WHS*

Item	STA	Feedback	Response
			requirements as a prerequisite unit • the remaining unit has *CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry* as a prerequisite unit 3. Industry has also determined that specific skills and knowledge are 'essential to achieving the subsequent competency' for eleven of these units, which means: • *CPCPCM3024 Prepare simple drawings* is a prerequisite unit for: ○ *CPCPCM2040 Read plans, calculate quantities and mark out materials* ○ *CPCPDR3021 Plan layout and install below ground sanitary drainage systems* • *CPCPCM3023 Fabricate and install non-ferrous pressure piping* is a prerequisite unit for: ○ CPCPFS3031 Fabricate and install fire hydrant and hose reel systems ○ CPCPWT3020 Connect and install storage tanks to a domestic water supply ○ CPCPWT3021 Set out and install water services ○ CPCPWT3027 Install backflow prevention devices • *CPCPCM3021 Flash penetrations through roofs and walls* is a prerequisite unit for: ○ CPCPGS3049 Install gas appliance flues • *CPCPGS3054 Calculate and install natural ventilation for Type A gas appliances* is a prerequisite unit for: ○ CPCPGS3061 Install and commission Type A gas appliances • *CPCPCM2055 Work safely on roofs* is a prerequisite unit for:

Item	STA	Feedback	Response
			○ CPCPRF3022 Fabricate and install roof drainage systems ○ CPCPRF3023 Fabricate and install external flashings ○ CPCPRF3024 Install roof components 4. **Compliance** with Principle 4 (Key Feature 10) of the *Training Package Quality Principles* is met in that 'Pre-requisite units of competency are used only when required' by industry. 5. The prerequisite 'chains' are in relation to MEM imported units into the core and UEE units imported into Group F, and as such are the responsibility of IBSA and Australian Industry Standards respectively. While the 'redesign units of competency to include skills and knowledge from the pre-requisite chains **might result in supporting** 'flexibility, coherence, consistency and implementation', removing imported units would reduce transferability across industries and could result in repetition as well as large, unwieldy units. The flexibility principle was met, as per QA report(s). Certificate III in Plumbing provides, for example, four options to achieve the qualification. The packaging rules of the qualification further support the flexibility by allowing also four imported units to be selected other training packages to support jurisdictional needs.
6	**VIC**	**Duplication of unit skills and knowledge** The project has not responded to COAG Industry and Skills Council's (CISC) training package-related initiatives or directions, the 2015 training package reforms, such as; • *revising qualifications and units of competency to better reflect current industry skills, knowledge and work practices and minimising duplication which will assist in improving efficiency in training delivery and assessment*	While the intent of the COAG reform of 'minimising duplication which will assist in improving efficiency in training delivery and assessment of units of competency' is appreciated, the issue is how would this be done. This project was a plumbing project. *CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry* relates to 'all on- or off-site construction workplaces.

Item	STA	Feedback	Response
		of units of competency. ○ CPCPCM2043 Carry out WHS requirements, & CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry are found across three (3) qualifications and address almost identical skills and knowledge resulting in: • limited meaningful skill and knowledge uptake for students • reduced quality of graduate outcomes to industry • potential funding issues	*CPCPCM2043 Carry out WHS requirements* is specifically for the 'plumbing and services work environment'. To look at these two units from a COAG reform perspective would need to be a separate project involving both the plumbing and construction industries – not looked at by one and then imposed on the other.
7	**VIC**	**Potential non-compliance with TPDEPP 2019, *para 12.3 & 12.6*:** The rationale for qualification deletion not easily identifiable for CPC80115 Graduate Certificate in Fire Systems Design Management. • Dissenting views related to suitability of content and packaging rules, were noted by the Fire Protection Association of Australia (FPAA) regarding Fire Protection qualifications during the project which 'stalled development'. The IRC uses a majority vote approach to resolve issues generally. CfE p.19 states 'the majority of the TAG members' feel the objectives were achieved for the fire protection project. **It is unclear whether / how this has been resolved, aside from a vote.**	**CPC80115 Graduate Certificate in Fire Systems Design Management** Enrolment and completion data on CPC80115 Graduate Certificate in Fire Systems Design Management is not available in NCVER. A rationale as to why this is case is because there are no training providers delivering the qualifications – no industry demand for it as it does not offer a real vocational outcome. The decision to propose the deletion of the qualification was taken in line with the AISC reforms to training packaged to remove superfluous/obsolete qualifications. This rationale will be included in the Case for Endorsement to provide further clarity. **Fire protection issue** Further clarity is provided regarding the issue and its resolution status in the Case for Endorsement.

Item	STA	Feedback	Response
		• The Case for Endorsement (page26) notes the qualification offers 'no real vocational outcome' however there is no enrolment data analysis and broad IRC consultation about CPC80115 Graduate Certificate in Fire Systems Design Management deletion. • The rationale for deletion of three (3) streams in the CPC40920 Certificate IV in Plumbing and Services is not identifiable in the Case for Endorsement. • The proposed qualification has x2 streams, (Hydraulic services design, and Operations.) How are the occupational outcomes of the deleted streams in the current qualification going to be met and support industry needs in those specialisations?	**Streams in qualifications** The *CPC40912 Certificate IV in Plumbing and Services* has five streams: • Fire services stream • Air conditioning and mechanical services stream • Plumbing and services – Management stream • Plumbing and services – Operations stream • Hydraulic services design stream. The *CPC40920 Certificate IV in Plumbing and Services* has two streams: • Hydraulic services design • Operations. Further clarifications have been provided in the Case for Endorsement.
8	**VIC**	**Entry Requirements** CPC50620 Diploma of Hydraulic Services Design, states the candidate must hold <u>either</u> the CPC40920 Certificate IV in Plumbing and Services, or the CPC40912 Certificate IV in Plumbing and Services <u>and</u> *CPCPMS4024 Apply building code*	Coding error has been amended. The Case for Endorsement, qualifications and CVIG have been updated to reflect this amendment. We deleted the CPCPMS4024 as it was a duplicative unit. The correct unit is CPCPCM4015 Access and interpret regulatory requirement for the

Item	STA	Feedback	Response
		and regulatory requirements to planned work activities. The following issues have been identified in relation to this: • the unit CPCPMS4024 does not appear with the draft units supplied for this case for endorsement zip file for review, nor does it exist on TGA. Does this unit exist as part of another case for endorsement pending? If so, how is the SSO mitigating against the affects and risk of the unit's potential non endorsement? • the unit code CPCPMS4024 and title given as an entry requirement does not correspond with the unit listing within the CVIG (refer p. 29 *CPCPMS4024 Access and determine building codes and regulatory requirements for plumbing*) • the unit CPCPMS4024 does not appear within the unit mapping table, or the revised unit listing of the CfE p. 52.	plumbing and services industry.
9	**VIC**	**Equivalence** **Non-compliance with the Training Package Products Policy 2019 is noted for the following:** • Two draft plumbing qualifications are deemed not equivalent to their current versions i.e. CPC32420 Certificate III in Plumbing and CPC40920 Certificate IV in Plumbing and Services, as part of this CfE (refer p.25). • Qualification and unit mapping tables record the equivalence status with previous iterations. Refer CfE p. 56 for qualifications, and CfE p.57 for units.	**Training Package Products Policy** '3.4. Qualifications - determining equivalence • 3.4.1. Where a qualification is superseded and the occupational outcome and/or the AQF level of the qualification has changed, the superseding qualification must be deemed 'Not Equivalent'. • 3.4.2. The occupational outcome can be determined to have changed when the skills and knowledge required to achieve the occupational outcome of the superseded and superseding qualifications cannot be mapped to each other. • 3.4.3. Determinations of 'Not Equivalent' may also be used to support licensing, regulatory, legislative or certification requirements.

Item	STA	Feedback	Response
		• However, the **qualification** mapping table does not provide: ○ information of the extent of changes to the packaging rules (policy paragraph3.3.3) for the non-equivalent qualifications CPC32420 Certificate III in Plumbing and CPC40920 Certificate IV in Plumbing and Services (with reduced streams), see CVIG p. 33 & 34 and CfE p.56. ○ enough information to users within the CVIG to indicate what has changed with the training product (refer policy paragraph 3.3.2). ○ the **unit** mapping table does not: ○ provide adequate information on the extent of changes made to the unit (policy paragraph 2.4.4) ○ apply correct equivalence table categories, e.g. CfEp.61 re new units, 'N/A' is used rather than 'newly created' (policy paragraph 2.4.5). ○ The combined effect of the above will create implementation issues for providers when transitioning students from superseded product, and impact planning related to training delivery, assessment and resourcing.	• 3.4.4. Determinations of 'Not Equivalent' must be substantiated in the Case for Endorsement as outlined in Section 12.3 of the Training Package Development and Endorsement Process Policy. The detail of these changes must be included in the qualification mapping information located in the Companion Volume Implementation Guide (refer section 3.3).' • '3.3.3. Qualification mapping information must include an equivalence table and information on the extent of changes to the packaging rules.'
10	**VIC**	**The rationale for mapping of equivalence is not consistently applied.** This is evident to units that have prerequisite units added such	The Victorian STA raised a valid point. CPCPMS3041 has been deemed non-equivalent to support the mapping consistency.

Item	STA	Feedback	Response
		as: • CPCPGS3061, deemed equivalent to current unit CPCPGS3061A, however equivalence questioned due to introduction of one new prerequisite unit CPCPGS3054 Calculate and install natural ventilation for Type A gas appliances • CPCOMS3041 introduced two (2) additional prerequisites yet deemed equivalent to current unit CPCPMS3041A.	
11	**VIC**	Overall, the submission in its current state has not addressed the activity order, nor provides any confidence for the AISC to make an informed decision given key inaccuracies such as: • The Case for Endorsement citing incorrect qualification and unit codes. • The CVIG citing and mapping incorrect imported unit codes and incomplete apprenticeship pathway listing. • Reference to mandating CPCCWHS1001 as a core unit for CPC qualifications, despite being instructed by the AISC in their February meeting to delete this unit. **Given the extent of the issues and inaccuracies included in Case for Endorsement, the Victorian STA does not support this progressing to the AISC.**	From the SSO's position, the requirements set out in the Activity Order have been satisfied. The coding and mapping issues have been rectified. Reference to mandating CPCCWHS1001 as core has been removed from the Case for Endorsement. Please note the unit was removed from the core, as per the AISC instructions prior to the project being sent to the STAs.
12	**QLD**	"Given the current COVID-19 climate, DESBT as the STA has only	

Item	STA	Feedback	Response
		conducted limited consultations with industry. However, the employer and industry peak bodies, unions and licensing bodies that were consulted provided feedback that there is no support for the Plumbing Case for Endorsement. The feedback includes: • a significant number of employers/small business will struggle to provide the range of work, therefore there is potential to affect employing apprentices; • units that are not relevant for every jurisdiction could/should be in electives; • the non-equivalence with current package means there will be issues with teach out; • there will be a fracturing of the trade by introducing new licence requirements – and if there are differences, it means that a number of plumbers that have a license, are not able to perform the same work outside the scope of the licence they hold – therefore, making it very confusing to the public. Additionally, the level of consultation with relevant licensing bodies does not appear in the case for endorsement, so difficult to determine if Licensing bodies have been consulted. Therefore, Queensland on the basis of the industry	• The packaging rules of the qualifications support the selection of units from the CPC and other training packages to support jurisdictional needs and delivery of training in a simulated workplace environment. Gas units, for example, can be delivered and assessed in a simulated workplace environment. • As per above. • The IRC has agreed to support a 2-year teach out period to support implementation.

Item	STA	Feedback	Response
		feedback received to date, does NOT support the Plumbing Case for Endorsement, and, given the current pandemic climate, requires at a minimum, an additional 3 months to conduct meaningful consultation with stakeholders to provide you with appropriate/considered feedback."	• The scope of work that a plumbing and/or fire protection practitioner undertakes under a trade is dictated by the relevant regulatory body in each jurisdiction under the relative legislative framework for that jurisdiction – not a qualification. The introduction of an updated and/or new qualification does not normally remove the rights for existing licenced or registered practitioners. The relevant regulatory body is responsible to ensure licenced/registered plumbing practitioners upgrade to the new qualification (and this would normally coincide with a set timeframe). A QBCC regulator was a member of the TAG. The VBA also had a standing member in the TAG. Artibus Innovation can support regulators as they review the updates to the training package components and update their regulatory requirements.

Report by exception – confirmation

Victoria (22 May 2020)

Significant nesting remains which the AISC requested be addressed. The integrity of the AQF level is still questioned as a result of nesting – Standard 8 of the Standards for Training Packages

- CPC20720 Certificate II in Drainage and CPC32620 Certificate III in Roof Plumbing remain almost fully nested within the CPC32420 Certificate III in Plumbing (General Plumber and Roofing) stream.
- The core unit of twenty Units of Competency is fully nested and only five of thirteen elective choices are different. Consequently, apart from five electives, the Certificate II and III are fully nested. AQF integrity must be addressed.
- The work activity order Artibus/TPD/2016-17/007 has not been properly addressed. The AISC commissioned Artibus to address nesting of the CPC20712 Certificate II in Drainage. This is documented on page 6 of 142 of the Case for Endorsement and has not occurred.

Artibus, as part of its rationale for retaining significant nesting, appears to have misinterpreted the AQF Pathways Policy as a "one-to-one" credit transfer arrangement, rather than an integrated qualification and credit arrangement that builds on complexity. AQF qualifications must build in complexity rather than nest whole or almost whole qualifications into a higher level qualification.

Qualifications must align with the AQF as per Standard 8 and RTOs will be audited against an AQF outcome. The onus is on the IRC and SSO to resolve this significant nesting issue rather than place the burden on RTOs to meet the required AQF level at audit where an AQF level 2 qualification forms the entire AQF level 3 qualification apart from five electives.

The IRC Operating Framework states:

2.2 Training Packages

Training packages specify the skills and knowledge required to perform effectively in the workplace; detailed in units of competency. They also describe how these units can be encompassed into nationally recognised qualifications that are aligned to the Australian Qualifications Framework (AQF) and industry recognised skill sets (or part qualifications, which also have currency in the workplace).

In addition, an inappropriate burden is being placed on the Victorian STA to fund at AQF level 3 for a qualification where learners can achieve an entire Certificate II (funded at a lower level) with only five elective units remaining. While Artibus' response is noted regarding funding and implementation being outside the scope of the IRC and SSO, this does not appear to align with the IRC Operating Framework which states:

2.1 Training Products

Training products are developed to reflect the occupational skills needs of an industry, or a group of industries, to facilitate employment and vocational outcomes for individuals. For the purposes of this document, training products include training packages and materials that support the implementation of training packages.

A rationale as to why the qualifications were nested has been provided to the STA. The IRC and SSO will engage, as needed, with the Australian Skills Quality Authority (ASQA) and RTOs to support implementation process. Further advice will also be provided in the Companion Volume Implementation Guide (CVIG) with the aim to facilitate clarity around the nesting of qualifications and implementation.

Pre-requisites driving deliver order nor provided for in the packaging rules

The VIC STA reiterates its initial response. Given that the pre-requisite units (7) are in forty units, they do drive delivery order or sequencing and this is non-compliant with Clause 2.2.2 of the Training Package Products Policy.

In addition, the pre-requisite units have not been listed or addressed and counted within the packaging rules. This does not support the implementation of the training package as required in the IRC Operating Framework.

Additionally, where pre-requisite units are not counted within the packaging rules they cannot be funded in Victoria. The onus to pay will likely fall on learners creating disadvantage.

A rationale relating to the usages of pre-requisites has been provided to the STA. This response stills stands. It is worth noting that the usage of pre-requisites across the qualifications was deemed compliant by the quality assurance panel member (QA Report is available in the Case for Endorsement).

Duplication of unit skills and knowledge – COAG reforms not met

The VIC STA reiterates its initial response:
The project has not responded to COAG Industry and Skills Council's 2015 training package reforms, such as;

- *revising qualifications and units of competency to better reflect current industry skills, knowledge and work practices and minimising duplication which will assist in improving efficiency in training delivery and assessment of units of competency.*
    - CPCPCM2043 Carry out WHS requirements and CPCCWHS2001 Apply WHS requirements, policies and procedures in the construction industry are found across three (3) qualifications and address almost identical skills and knowledge resulting in:
    - limited meaningful skill and knowledge uptake for students
        - reduced quality of graduate outcomes to industry
        - potential funding issues

This project could have removed duplication, in accordance with the COAG reform directive. The two units are more or less the same.

Quality Principle 4 stated within the Training Package Development and Endorsement Process Policy requires flexibility in relation to the purpose of Training Packages. It requires products to be developed to adapt to changing job roles and workplaces.

Artibus attempts to rely on Quality Principle 4 to support nesting (which QP 4 doesn't support nesting in this instance) but does not acknowledge and enact this Quality Principle, which is part of the Training Package Development and Endorsement Process, in relation to removing duplicated skills and knowledge to foster flexibility and adaptability.

Duplication also impacts Victoria's funding resources as it is asked to subsidise two units of competency, for example, that are similar in content.

A rationale has been provided to the STA. This response stills stands.

Equivalence – insufficient information does not comply with the Training Package Products Policy

The VIC STA reiterates its initial response. Non-compliance with the Training Package Products Policy 2019 as follows:

The **qualification** mapping table does not provide:

information of the extent of changes to the packaging rules (Clause 3.3.3) for the non-equivalent qualifications CPC32420 Certificate III in Plumbing and CPC40920 Certificate IV in Plumbing and Services (with reduced streams), see CVIG p. 33 & 34 and CfE p.56.
enough information to users within the CVIG to indicate what has changed with the training product (Clause 3.3.2).

The **unit** mapping table does not:

provide adequate information on the extent of changes made to the unit (Clause 2.4.4)
apply correct equivalence table categories, e.g. re new units, 'N/A' is used rather than 'newly created – the unit has been created to address and emerging skill or task required by industry' (Clause 2.4.5).

The combined effect of the above will create implementation issues for providers when transitioning students from superseded product, and impact planning related to training delivery, assessment and resourcing.

A rationale has been provided to the STA. 'Newly created' has been included in the unit mapping.

Qualification Packaging rules and funding implications

The Victorian STA asked for reconsideration regarding the increased number of units of competency to complete the Certificate III in Plumbing. The necessity for the significant increase in units from 66 to 88 in relation to supporting the job outcome is not clear; the proposed new Certificate III is not as flexible as the existing qualification; the addition of some roofing competencies in the core is questioned as they are not sufficient in number and content to be acknowledged by the regulator for licensing purposes; and Including Drainage and Gasfitting into a core will in most cases lead to a reduction in flexibility of delivery (but will broaden the apprentices "off the job" knowledge in these two streams).
In addition, the packaging rules for the CPC32420 Certificate III in Plumbing (General +Roof + Mechanical) are not clear which poses an additional barrier for implementation.
Using the packaging rules of OPTION 4 provided in the qualification template:

> For the award of the CPC32420 Certificate III in Plumbing (General Plumber Roofing and Mechanical) a minimum of 82 units (82 Excludes the pre-requisites) are to be completed as follows:
> 44 core units
> 38 electives Elective are to be selected as followed:
> • 8 units from Group A and
> • 4 units from Group B and
> • 3 units from Group C and
> • 4 units from Group D and
> • 7 units from Group E and
> • 8 units from Group F

Up to 4 elective units may be replaced by units from any other group or from any relevant nationally endorsed Training Package or accredited course. The units must contribute to the vocational outcomes of the qualification. An asterisk (*) against a unit code below indicates that the unit has a prerequisite.

Groups A to F total 34 units and not 38 as required; and the rules state that up to 4 elective units may be **replaced**. There's seemingly an error here or insufficient clarity of advice that cannot be supported.

The word 'replace' has been replace with 'select'.

It is concerning that the SSO is using Victoria's Purchasing Guide to support volume of learning in relation to the increased units of competency. The VPG is a Victorian funding mechanism and a complex issue and funding mechanisms are different for every STA. VPGs have some basis in the time required to deliver and assess units of competency, but they do not align with volume of learning as a starting or any other point. Notional time to deliver the educational content does not equate to competency and does not include time for practice which is part of the learning.

The response from Artibus does not seem to take into account the likelihood of RTOs selecting units with pre-requisites to meet local employer or student cohort needs – see the comment about pre-requisites not being counted in the packaging rules, above…

The analysis provided by the SSO in the response to the STA's was undertaken to provide current information to support the drafting and contextualisation of our response to the STA. The IRC and SSO acknowledge the variance on the funding mechanisms undertake by each STA.

Thank you for resolving other issues related to Entry Requirements, coding issues, mapping consistency, unclear advice about proposed Grad Cert deletion etc.

Please note that care needs to be taken regarding imported units from the MEM TP and the UEE TP. Both of these Training Packages have issues and MEM has not progressed to Skills Council and UEE has not been approved by the AISC. You're likely aware that MEM has stalled due to mandated assessment of workplace practice hours in Units of Competency and Artibus should be aware of the potential for forthcoming changes impacting on the Plumbing qualifications. Likewise for the UEE components.

The SSO is aware of the forthcoming changes. Any changes required to the qualifications will be undertaken in due course.

QLD (20 May 2020)

Report by exception –
"On 17 April, 2020 Queensland requested, given the COVID-19 environment, provided initial issues and requested a 3 month extension to providing feedback to the Plumbing Case for Endorsement (PCfE). Initial issues for considerations included:

- a significant number of employers/small business will struggle to provide the range of work, therefore there is potential to affect employing apprentices;
- units that are not relevant for every jurisdiction could/should be in electives;
- the non-equivalence with current package means there will be issues with teach out;
- there will be a fracturing of the trade by introducing new licence requirements – and if there are differences, it means that a number of plumbers that have a license, are not able to perform the same work outside the scope of the licence they hold – therefore, making it very confusing to the public. Additionally, the level of consultation with relevant licensing bodies does not appear in the case for endorsement, so difficult to determine if Licensing bodies have been consulted.

On 11 May 2020, Artibus Innovation responded with an updated PCfE indicating that our issues may have already been responded to sufficiently. Artibus Innovation also invited Queensland to table further issues and or to discuss further issues. (Email attached)

Given no extension was provided; Queensland has conducted further 'limited' consultations with a Plumbing Peak Body, the Plumbing Union and a training provider to provide a view from its membership. I have provided the collective comments/feedback contained in the attached Template for Certificate III in Plumbing, and in the following table. I have also included responses Artibus Innovation provided in the updated PCfE.

Issue raised	Comment	Artibus Innovation response provided
Employers are not able to provide the range of work, some units not relevant in jurisdictions and the number of units of competency to be completed for the Mechanical (74) and Roofing & Mechanic (82) is very high.	The issue is how this will limit future plumbing apprentice recruitment. In Qld only a small number of plumbers provide gas service, so an employer has to pay for simulated training and for the time the apprentice is away.	The project seeks to introduce a nationally recognised and portable qualification into a federation where every jurisdiction has different regulatory requirements. Impacts on apprenticeships – a training provider can delivery gas-related training and assessment in a simulated environment. This is currently the case and therefore is not an introduced change.

	The requirement to complete such a high number of units of competency in order to achieve the qualification will be difficult for some employers and apprentices to meet within the four year apprenticeship. Therefore, employers will be reluctant to take on a new apprentice as they may see this new qualification as a burden on their business in terms of being able to offer the scope of work required and also in having to release the apprentice from work in order to complete the off the job components required and the large number of units. Note - Sections of the Plumbing Industry in Queensland believe that this issue is able to be addressed; however, a discussion needs to be had to completely understand.	
Non-equivalence with current training package	Queensland required the issue of non-equivalence to be addressed. No explanation has been provided as to why there is no response to this issue. Given the outcome from this qualification should be a 'Plumber', the proposed CPC32420 should applied new and emerging technologies to relevant competencies that delivers an outcome at least equal to the previous qualification. Industry advice is the proposed CPC32420 fails this test and to a large extent has overlooked many vital aspects of plumbing. The logic behind CPC32420 not being equivalent is also not consistent with other qualifications e.g. Cert II in Drainage and Cert III in Gas fitting!	No response provided by Artibus Innovation

	Further, the issue of non-equivalence must be addressed as non-equivalence will cause a burden to licensing. Time and consultation is required to understand whether a license can be issued on an older qualification when it has been deemed non-equivalent to the new. The Certificate III in plumbing is supposed to be responsive to Plumbing Industry needs. Industry advice is that it does not. Surely, we must ensure the best outcome for Plumbers not the minimum.	
Licensing issues and fracturing of the trade by introducing new licence requirements.	There will be a fracturing of the trade by introducing new licence requirements – and if there are differences, it means that a number of plumbers that have a license, are not able to perform the same work outside the scope of the licence they hold – therefore, making it very confusing to the public. Additionally, the level of consultation with relevant licensing bodies does not appear in the case for endorsement, so difficult to determine if Licensing bodies have been consulted. The agreed training package should identify an agreed minimum outcome as licensing bodies may / will license based on that. Skills obtained in any jurisdiction should be applicable to meet the minimum licensing requirements in any state.	The scope of work that a plumbing and/or fire protection practitioner undertakes under a trade is dictated by the relevant regulatory body in each jurisdiction under the relative legislative framework for that jurisdiction – not a qualification. The introduction of an updated and/or new qualification does not normally remove the rights for existing licenced or registered practitioners. The relevant regulatory body is responsible to ensure licenced/registered plumbing practitioners upgrade to the new qualification (and this would normally coincide with a set timeframe)

Queensland believes the goal of this and any training package is to produce well-rounded tradespersons' who are equally skilled to work both in the city and regionally, which in Queensland, the ability to work regionally is a priority. Queensland is not satisfied this training package meets the needs of industry, therefore, Queensland requests that all the issues in this email and the attached document be considered, negotiated and resolved.

I can confirm that Queensland does not support the Plumbing Case for Endorsement, and I understand that Qld's position will be submitted as a Report by Exception at the June AISC; therefore, I further request that the issues be submitted to the AISC unchanged, unless resolved.

As always, Queensland is happy to discuss these issues."