

17.03.2024

**To Waihanga Ara Rau.**

Re- PGD training reimagined, feedback on Gasfitting.

The below feedback is provided by the Association of Hydraulic Services Consultants Australia – New Zealand Branch (AHSCA-NZ).

The feedback follows in a very similar vein to that of the previous plumbing and Drainlaying submission, some aspects are also repeated in this submission.

Hydraulic services consulting is a specialised discipline concerned with the flow and conveyance of, water, sewer, stormwater and gas services.

Hydraulic Services, and the design of these services, help maintain a minimum level of public health standards throughout the developed world, and it helps prevent the spread of disease.

Just like builders need architectural plans to construct a building, Gasfitters need a set of hydraulic drawings to ensure liquids and gases safely go where they need to.

Hydraulic Services in New Zealand is the design and documentation of plumbing, drainage and gas services including, but not limited to:

Sanitary/Sewer plumbing and drainage.	Potable Hot, cold, and warm water supply.
Onsite wastewater treatment including grey water and black water treatment systems.	Hot water generation plant.
Trade waste.	Non -potable water supplies.
Pumpstations, sewer and stormwater.	Natural gas and liquefied petroleum gas (LPG) supply.
Backflow prevention.	Laboratory Gases (not all Hydraulic consultants cover this).
Stormwater systems, including downpipes (excludes water proofing).	Medical gases (not all Hydraulic consultants cover this).
Syphonic rainwater systems.	Fire protection (not all Hydraulic consultants cover this).
Stormwater treatment systems.	Expert Witness services (not all Hydraulic consultants provide this)
Rainwater and stormwater reuse.	Peer reviews and Site Observations

The New Zealand Association is made up of members based in different parts of New Zealand, almost all the members have come from a plumbing and drain laying & gasfitting background where they have eventually moved away from day-to-day hands on work and into Hydraulic Consulting and Design, therefore have a wide a varied range of skills, knowledge and experience to be able to comment on the proposed qualifications.

Members have provided feedback; this has been summarised on the following pages.

## Outcome Statement:

### Gasfitting

The outcome statement is confusing, however when reviewing the qualification one can see why it is written as such.

“A licensed Gasfitter can safely carry out gasfitting work with reduced risk of fire, explosion, and poisoning.”

The graduate can legally carry out all gasfitting work, however consumer be aware of the underlying risk of fire, explosions and poisonings.

Reads like a hidden disclaimer.

#### OUTCOME STATEMENT/TE TAUĀKI Ā-HUA

##### Strategic Purpose statement/ Te rautaki o te tohu

The purpose of this qualification is to provide the gasfitting sector with people who are skilled as gasfitting tradespersons and ready to apply for registration as a licensed gasfitter under the Plumbers, Gasfitters, and Drainlayers Act 2006.

This qualification is targeted at people working in the gasfitting industry and who can fulfil the requirements to obtain a limited trainee authorisation issued by the Plumbers, Gasfitters and Drainlayers Board.

Graduates will have the skills and knowledge required to be, once registered and licensed, authorised to legally carry out all gasfitting work. A licensed gasfitter can safely carry out gasfitting work with reduced risk of fire, explosion, and poisoning.

## Credit comparison.

Credit Comparison			
Trade	Credits		Loss of Credits
	Exiting version	Proposed New Version	
Gasfitting	235	220	15

Effectively if 1 credit is known to be approximately 10 hours of learning time, then:

- Gasfitting has lost 150 hours.

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As mentioned in our last submission, there is a potential risk that the reciprocity agreement with the qualifications and licensing may need to be reviewed, with New Zealand Trained plumbers and drainlayers requiring additional training to work within Australia.

This is something that is already being discussed with our counterparts in Australia.

### Means of Delivery

Members are a little confused how many of these units will be delivered in respect to what the student and/or provider can get away with not doing to get an achieved mark.

It appears it is kind-of a pick and choose type scenario, with a lack of direction to what is actually required to be done and complete.

The use of certain words is interesting, those words being:

- Should
- this may
- it is expected
- it is intended
- it is encouraged
- wherever possible

Providers and students alike will no doubt pick and choose to suit, maybe this is a reflection of the poor state of affairs many of the training institutes are at, thus unable to adequately deliver in full what is required so the wording has been framed to aid inadequate delivery.

It is well known that modern learning theory suggests that adult learners need to use authentic performance tasks to enable them to proficiently apply what they are learning to real life. Gasfitting are practical disciplines requiring a real and proper practical approach to learning.

It is also well known in legislation that once a person is registered as a gasfitter there are no limitations on what they can do (except the conditions of license of course), creating a training regime where there are choices and the ability to remove important aspects is just creating another generation of inadequately trained gasfitters which is reality can also be considered a danger to the health and safety of the public.

This is something we will raise with the regulator about (PGDB).

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## Level of complexity

With the loss of learning credits, the diminishing of demonstrating knowledge, reduced scope to mainly residential, light commercial and a move to more onsite assessments whereby the employer (assume they are accredited to assess) can tick the box for some assessments.

There is consensus that the qualification potentially could be reframed as a level 3, whilst the Level 3 (we have not seen this yet) potentially could be reframed as a L2.

Very few employers cover every single aspect of gasfitting, with many focusing on what they know, i.e., domestic only, maintenance only etc. It must also be noted that gasfitting is varied depending on which area/region you are situated, a rural gasfitter will require distinctly different skill sets and knowledge to say a gasfitter engaged in multi-story high rise work, in any instance no matter what part of the country you are trained in, an employer should be confident to employ anyone from around the country based on an educationally sound national apprenticeship qualification/programme.

The complexity and embedded knowledge of the training syllabus must take this into account and shouldn't try and form a cookie cutter type approach to the training.

Scanning some of the Unit Standards it also appears that some of the most important Units have been substantially slashed, fluing, ventilation and LPG systems as examples, probably one of the most least understood subjects and are continually poorly executed on job sites.

With gasfitting being self-certification, many poor installations fly under the radar going unnoticed and unchecked until something eventually happens that raises red flags.

On the subject of self-certification, the training syllabus should be even more robust than that of plumbing and Drainlaying.

We also appreciate many of the polytechnics and other training providers are more suited to pre-trade training with their facilities as opposed to the wider scope of requirements with apprenticeship training, we are unsure if all of the institutes have a dedicated gas training facility inclusive of boats, caravans, commercial appliance areas for students to work and learn in.

## Expiring Unit Standards

It was noted many of the existing Unit Standards will expire and or be replaced by the new proposed Unit Standards.

Interesting to note is the deletion of 30528, why? One can only assume the focus of this proposed qualification is purely residential gasfitting only? With commercial projects, contracts, as-builts and shop drawings form part of the contractual obligations of the successful tenderer, as does any variation to contract and contract drawing. The approving authority that you allude to in this instance would be the engineer to the contract. As-builts from gasfitters are notoriously bad, this is an area which requires serious upskilling, especially now many contracts are based within the BIM realm of deliverables and asset management information.

<p>30528 <b>Expiring</b> Make as-built drawings and record variations to job specifications for gasfitting jobs</p>	4	5	<ul style="list-style-type: none"> <li>It is proposed to expire this unit standard. Gasfitters do not submit <u>as-built</u> with variations to authorities.</li> </ul>
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Although the perception that gasfitting is self-certification, thus the gasfitting contractor can potentially do as they please, many commercial contracts include a consulting engineer, part of the engineer's role for the client will be to undertake inspections, inclusive of the gasfitting works, the gasfitters may also be following an engineering design which is required to be followed inclusive of strict specification requirements.

The removal of this Unit Standard demonstrates a basic lack of understanding of the commercial space in respect to gasfitting and contractual requirements.

### Regulatory Requirements

One question raised was around persons undertaking the qualification whilst working fulltime in another industry or another job. How is this going to be managed? The purpose of an apprenticeship is learning on the job whilst being employed in gasfitting so actively working in the trade every day, every week, every year.

Therefore, is this proposed qualification open to anyone who can get someone to provide/sign for supervision then that person just takes time off their usual work to attend block courses (if any, especially if the person signing off the work just ticks everything as competent), basically what measures are to be put in place to prevent manipulation of the system?

<p>Other requirements for the qualification (including regulatory body or legislative requirements)/ Kō ētahi atu here o te tohu (tae atu hoki ki ngā here ā-hinonga whakamarumarū, ki ngā here ā-ture rānei)</p>	<p><b>Regulatory Requirements</b></p> <p>Potential learners must be made aware that to become licensed they are required to meet the competencies, registration, and licensing requirements specified by the Plumbers, Gasfitters and Drainlayers Board (Plumbing Registration and Licensing) Notice 2016, or any amendments or replacements, referred to as "PGD Board Competencies".</p> <p>Learners enrolled in this qualification and undertaking sanitary plumbing in New Zealand must hold a current limited certificate trainee authorisation or exemption under supervision as issued under the Plumbers, Gasfitters, and Drainlayers Act 2006 by the PGD Board.</p>
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### Observations:

Social-constructivist pedagogy supports the theory that most adults bring a wide range of experience to the classroom and that existing knowledge must be drawn upon to provide a foundation from which to improve and learn. It is anticipated that most students will link their developing knowledge of theory with real practice in their place of employment.

The consensus of members is the skill sets and knowledge is noticeably diminishing onsite, especially with the newer generations coming through the industry, especially over the last the 5-6 years, potentially from constant training disruptions dues to numerous reasons.

What is of concern is that this generation will be passing on already limited knowledge to another generation that will come through, with what is appearing to be even less knowledge, this is of a concern, especially when the health and safety of the public is potentially at stake.

With respect to site inspections, our members are engaged in construction monitoring and attend site inspections on a regular basis, they cover all aspects of the trades, domestic, commercial industrial and civil works, the consensus of members is the skill sets and knowledge is noticeably diminishing onsite, especially with the newer generations coming through the industry, especially over the last the 5-6 years, potentially from constant training disruptions dues to numerous reasons.

If we turn to our colleagues in Australia, their training system is longer and is getting longer at every training review, they appear to understand the complexities of the industry and appreciate education must not be sacrificed just to appease fast tracking for the sake of fast tracking and tick boxing.

The NZ president has just spent a week in Australia speaking to numerous industry representatives and found that both countries have similar challenges in respect to apprenticeship training, however there is definitely a different focus on the level of complexity and length of training in Australia in comparison to New Zealand.

Ultimately the devil will be in the detail at programme delivery level, hopefully training will not be compromised even further than it has over the past 10 years where the focus from the outside looking in appears to be on assessment and gaining credits as opposed to actual training of the trade intricacies and more importantly trades sciences. We fully appreciate you cannot learn everything in 5 years, you still continually learn throughout your career, however the underpinning fundamentals of the “why” is critically important as a foundation of learning.

The Association will watch with interest to see how these qualifications progress, the Association is also intrigued to see what happens with the governments proposal to de establish Te Pukenga, hopefully this uncertainty and continual restructuring does not impact further on apprenticeship training for the Plumbing, Drainlaying and Gasfitting trades.

Lastly, thank you for the opportunity to provide feedback on these proposed new qualifications, it is great to see work being done on these and hopefully the final refined product in conjunction with a well thought through educationally sound approved programme will produce world class gasfitters!

17.03.2024

Regards

A handwritten signature in black ink, appearing to read 'Nick Fleckney', written over a light blue grid background.

Nick Fleckney  
President AHSCANZ



Website : [Home - AHSCA](#)