

Reticulated Gas – Competency Protocol

PREPARED BY THE NEW ZEALAND GAS INDUSTRY TO PROVIDE
A FRAMEWORK FOR COMPETENCY IN RELATION TO SAFE
WORKING ON RETICULATED GAS SYSTEMS.

Document Control

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History

Version	Date	Summary of changes
4.0	March 2024	Addition of an endorsement (E13) for dealing with gas filled building associated with pressure control equipment leakage.
3.0	6/09/2023	Updated for administrative changes with GasNZ and iskills to Avetta
3.0	15/07/21	Updated to include revised unit standards approved by NZQA and clarify prerequisite requirements.
2.0	01/01/2021	Comprehensive review of CoC Framework following changes to Gas Industry Qualifications & Unit Standards.
1.0	27/09/2012	CoC Framework revised and published as GIP009
0.0	12/12/2006	Initial CoC Framework developed and published

The GasNZ Secretariat holds the Master Copy of the Protocol which is available via the GasNZ website at <https://gasnz.org.nz/resources>

All amendments issued will carry information identifying their date of issue, and confirmation of the current version.

Any number of uncontrolled copies of this Protocol can be made and distributed within organisations, however when uncontrolled copies are issued, internal procedures shall be in place to ensure that revisions and updates are made to those copies.

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1.0 Foreword

The members of the Gas Association of New Zealand have developed this Certificate of Competence (CoC) Protocol which identifies a set of minimum competency requirements for persons working in “hands-on” roles in the reticulated gas industry.

The Protocol was prepared under the auspices of the GasNZ Gas Training Committee by representatives from the gas transmission and distribution network operators, gas measurement system owners and service providers.

This Protocol is one of a series developed by GasNZ to provide practices and procedures to assist in achieving compliance with statutory obligations. These are recognised by the Industry as good practice to support safe and efficient outcomes.

The Protocol shall be subject to a formal review by all participating organisations, no less frequently than every two years. Updating is the responsibility of the Chair of the GasNZ Gas Training Committee.

2.0 Protocol Representation

This Protocol has been developed under the auspices of GANZ Gas Training Committee on behalf of the New Zealand Gas Industry by representatives from the following member organisations:

- First Gas
- Powerco
- Vector Distribution
- Vector AMS
- GasNet
- Nova

In addition, representatives from the following organisations contributed to the development process:

- MITO
- Electrix
- Downer
- Tony Wall Contracting
- Genesis Energy

The contribution of time and effort by all the representatives is acknowledged and appreciated.

3.0 Protocol Jurisdiction

This Protocol is not a legal document and all parties acknowledge that there is no legal obligation for any party to support or abide by the provisions of it. The Protocol reflects the outcome of a consultation process involving all appropriate sectors of the reticulated gas industry. The status of the Protocol relies on the ongoing voluntary participation of all parties but is expected to be given formality by recognition through service contracts and agreements.

As ownership, organisational, resource or legislative changes could alter these principles, or any party's commitment to them, a party can register their concerns at any time. Every effort will be made to speedily resolve those concerns and maintain their collaborative approach so that the Protocol has full industry support and participation.

4.0 Purpose

The Protocol's principal objective is to describe an industry agreed framework which sets the requirements for Certificates of Competency (CoC's) that support safe working on reticulated gas systems to minimise the risk of harm to persons and damage to property.

The Protocol is designed to support the safety and governance framework outlined in the Gas Act 1992, the Health and Safety at Work Act 2015 and relevant codes of practice.

It is envisaged that a common level of competence across the industry will support transferability of personnel and cooperation between companies and contractors.

5.0 Scope

The Protocol applies to gas distribution and gas measurement system (GMS) owners in the reticulated gas sectors.

The scope of the CoC's have been set to align with the requirements of:

- AS/NZS 4645 Gas Distribution Networks.
- NZS5259 Gas Measurement
- GIP001 Disconnection and Reconnection Protocol.

The Protocol deliberately excludes any commercial terms and conditions relating to the application of the CoC's. These will be subject to specific contracts between asset owners and the service providers they engage to work on the assets.

The CoC's are built from unit standards approved by the New Zealand Qualifications Authority. Alternatives to the specified unit standards are accepted where there is clear and adequate alignment. The GasNZ Gas Training Committee will approve such alternatives.

Overseas qualifications can be assessed against the requirements of the CoC Framework. An assessment will be conducted by the GasNZ Gas Training Committee and a registered MITO assessor. Where there is clear alignment, a candidate may be awarded CoC's appropriate to their qualifications. This process does not award the candidate an equivalent NZQA Gas Qualification. If the candidate requires this, then the candidate will need to follow the defined NZQA process to obtain the Gas Qualification via the skills recognition framework or by completing the necessary unit standard training.

6.0 CoC Administration

The administration of CoC's is managed by Avetta under the auspices of the GasNZ Gas Training Committee. The CoC Framework and CoC Application Forms are available via their website at

<https://www.avetta.com/en-au/welcomeiskills>

CoC holders are issued with a single Competency Card with a QR code to access an online mobile app called Onsite Mobile which holds the details of CoC's held and date of expiry etc. Support on how to download the app and register can be provided by Avetta via gascertificate@avetta.com or 07 542 0857.

7.0 CoC Issue & Renewal

When a person can demonstrate competence in the required unit standards, they may apply to be issued with an authorised CoC Card for the work type activity. The application for a CoC must be verified and supported by either a Principal Contractor or an Asset Operators Representative which attests that the applicant is eligible to apply for the CoC.

Red and Orange CoC's are valid for a period of two years. Prior to the CoC renewal date, the holder must undergo appropriate refresher training and assessment to verify that they have maintained their competence.

Green CoC's are valid for a period of three years. Prior to the CoC renewal date, the holder must undergo appropriate assessment to verify that they have maintained their competence.

If competence is verified the CoC can be renewed. If competence cannot be verified, the holder will be required to undertake appropriate refresher training and re-assessment to verify competence.

Only the highest level CoC and any associated endorsements held need to be refreshed to be renewed.

8.0 Transitional Provisions

The description and requirements for CoC's in this version of the Protocol differ from those set out in the previous version introduced in September 2012. The previous version listed several National Qualifications as the prerequisite requirements for CoC's. Those qualifications expired on 31 December 2020 and are no longer obtainable. Approximately 35 of the unit standards that supported those qualifications also expired at the same time.

The old National Certificate qualifications have been replaced by New Zealand Certificate qualifications. These are

- New Zealand Certificate in Reticulated Gas Pipelines (Level 3)
- New Zealand Certificate in Reticulated Gas Pipelines (Level 4) with strands in Metering and Pressure Control and Polyethylene Pipeline Construction
- New Zealand Certificate in Reticulated Gas Pipelines (Metering and Pressure Control) (Level 5)

The programme for the Level 3 qualification was approved by NZQA in September 2020.

The programme for the Level 4 qualification has been approved by the Gas Training Committee but has not yet been approved by NZQA.

The programme for the Level 5 qualification is under development.

The unit standards that support these qualifications have been reviewed, modified and/or updated. Approximately 25 new unit standards have also been developed.

As a result of these significant changes to the qualifications and unit standards, the transition from the previous version of the Protocol to this version will take a period of time to be fully implemented.

The revised Protocol was introduced on 1 January 2021. However, the requirements only apply to existing CoC holders from the renewal date of each existing CoC.

The principles applied to transition will be:

- Any existing CoC's which clearly align with a CoC in the revised Protocol will be grandfathered subject to the completion of appropriate refresher training. (See Appendix 4)
- Any existing CoC's that are not part of the new Protocol will be extended for a period of no greater than 12 months from the renewal date to enable the holder to complete any additional requirements to qualify for the new CoC. (See Appendix 4)
- Where an existing CoC holder wishes to obtain any additional CoC's, the requirements of this Protocol will apply. For example:

- A person holding the existing Construction Service Laying CoC who wants to obtain a Construct PE Mains CoC must obtain the unit standards for that CoC specified in this Protocol (see Appendix 3, CoC8)
 - A person holding an existing Network General CoC who wants to obtain a Construct PE Services CoC must obtain the unit standards required to obtain the Gas Foundation CoC first, and then progress to the obtain the unit standards for the Construct PE Services CoC. (see Appendix 3, CoC4 & CoC7)
- New entrants to the industry will work to this version of the Protocol.

The detailed requirements to transition from an existing CoC to a new CoC are set out in Appendix 4.

9.0 CoC Protocol Structure

The remainder of this Protocol is set out as follows:

- Appendix 1 Definitions of CoC's and Intent
- Appendix 2 CoC Pathway
- Appendix 3 CoC Types, Permitted Actives, Prerequisite Requirements & Unit Standards
- Appendix 4 Additional requirements to transition to new CoC's

Appendix 1 Definitions and Intent

1.1 Levels of Supervision:

Each CoC is colour coded to define the level of supervision that is required to be provided for the works being undertaken:

Red CoC: Direct supervision by a person who holds a current CoC for the work being undertaken.

Orange CoC: Indirect supervision - by authorised person(s) that give approval for the works to be undertaken.

Green CoC: Unsupervised

1.2 Authorised Restricted Access:

The purpose of the Authorised Restricted Access (ARA) is to ensure that employees and approved service providers of asset operators who require access to reticulated gas assets/work sites to carry out authorised works are aware of the potential hazards of those assets/work sites and the associated safety precautions that must be taken.

The ARA is an Orange CoC and permits:

- Specified work that does not affect the operation of the gas assets such as meter readings, site inspection, painting, vegetation control, traffic management, reinstatement, site surveying and site housekeeping. These works may be carried out under indirect supervision as determined and approved by the asset operator.
- Specialist works such as directional drilling, steel welding, weld inspections, non-destructive testing etc. on the gas assets while the site is under the direct supervision of a holder of a relevant CoC for the works being undertaken.

The ARA is obtained by completing an approved induction course and is valid for 2 years. It can be renewed by undertaking an approved refresher/assessment.

1.3 Safety Induction CoC

The Safety Induction CoC is a Red CoC and is designed to introduce new employees to the gas industry. It will provide the basic safety knowledge and skills which will aid the person to identify hazards and keep safe within the workplace while under direct supervision. It is anticipated that the new employee would obtain the Safety Induction CoC as soon as practicable after starting work. The Safety Induction CoC is not considered a long-term proposition for the holder. It is anticipated that the holder will progress to the Safe Working CoC. If this is not the intention, then the holder needs to undergo appropriate refresher and assessment every 2 years.

The Safety Induction CoC is a prerequisite for all other CoC's.

1.4 Safe Working CoC

The Safe Working CoC is a Red CoC and is designed to expand the persons skills for working safely while under direct supervision.

The Safe Working CoC is a prerequisite for all other CoC's and is valid for 2 years. It can be renewed by undertaking an approved refresher and assessment.

It is envisaged that a new employee could typically obtain the Safe Working CoC within the first 12 months of employment.

1.5 Gas Foundation CoC

The Gas Foundation CoC is an Orange CoC and is designed to provide the person with the skills, knowledge and understanding of reticulated gas activities to enable them to assist in carrying out a range of activities while under the indirect supervision of a person who holds a CoC for the relevant works. The holder may also carry out additional tasks that they hold a relevant unit standard for as authorised by the asset operator but excludes carrying out any tasks that the holder does not hold a relevant unit standard for. The Gas Foundation CoC is valid for 2 years and can be renewed by undertaking an appropriate refresher and assessment.

1.5 COC Endorsements

Several CoC's include the provision for an endorsement for specific activities to be added to a base CoC. This is like the concept of endorsements for driving licences and is designed to enable persons to obtain a CoC for specific tasks.

1.5.1 Endorsements for Operations activities:

A holder of the Gas Foundation CoC can obtain an endorsement to carry out the following Operations activities unsupervised through completion of specified unit standards:

- Odorant survey (E6)
- Cathodic protection survey (E7)
- Mark-outs and stand-overs (E8)
- Valve maintenance (E9)
- Leakage survey (walking) (E10)
- Leakage survey (vehicle) (E11)
- Issue Work Permits (W12)

1.5.2 Endorsements for PE Jointing:

An additional endorsement is required to perform pipe jointing:

- Electro fusion jointing (E1)
- Butt fusion jointing (E2)

1.5.3 Endorsements for Specialist Activities:

The industry acknowledges that there are some specialist activities that are carried out on the gas assets relatively infrequently. The following activities are not included as a mandatory requirement for any of the CoC's but are included as optional endorsements that can be added to a CoC:

- Hydrostatic testing (E3)
- Hot Tap steel pipe (E4)
- Install CP Test Points (E5)

If the above activities are not undertaken by a person with an appropriately endorsed CoC, it is expected that the person carrying out the work will have an Authorised Restricted Access CoC and be able to demonstrate suitable qualifications, competence and experience to carry out the works which has been verified and approved by the asset operator. In addition, direct supervision of the activity must be carried out by a person holding a CoC relevant to the principal works (e.g., Construct Mains CoC etc.)

1.5.4 Endorsement for Pressure Control activities:

An endorsement is available for Pressure Control CoC holders to respond to gas filled buildings associated with leakage from pressure control equipment: GMS Leakage Response (E13).

Appendix 2 CoC Pathway

This indicative Pathway should be read in conjunction with Appendix 3

Red CoC:	Holder works under direct supervision of a person who holds a CoC for the work being undertaken.
Orange CoC:	Holder works under indirect supervision as authorised by a person(s) responsible for the works.
Green CoC:	Holder works unsupervised
CoC Pathway	<p>—————▶ Prerequisites & Routes</p> <p>- - - - -▶ Optional Endorsements</p>

Asset operator personnel required to access gas sites for site surveys, audits, inspections etc.

Service providers providing support services such as meter readings painting, vegetation control, site housekeeping.

Specialist trades providers such as steel welding, weld inspections, non-destructive testing etc.

1. Authorised Restricted Access

Personnel entering the gas industry intending to work on the reticulated gas system in a "hands-on" role.

2. Safety Induction
3 Unit Stds
Credits: 9

3. Safe Working
5 Unit Stds
Credits: 15

5. Replace GMS < 25m3/hr.
9 Unit Stds
Credits: 51

6. PE Pipelaying Only
10 Unit Stds
Credits: 58

PE Pipelaying Endorsements	
E1	PE Pipe Jointing Electro-Fusion
E2	PE Pipe Jointing Butt-Fusion

Operations Endorsements	
E6	Odorant Survey
E7	CP Survey
E8	Mark-outs & Stand overs
E9	Valve Maintenance
E10	Leakage Survey (Walking)
E11	Leakage Survey (Vehicle)
E12	Issue Work Permits

4. Gas Foundation
13 Unit Stds
Credits: 61

7. Construct PE Services
11 Unit Stds
Credits: 75

8. Construct PE Mains
5 Unit Stds
Credits: 36

9. Construct Steel Mains & Services
6 Unit Stds
Credits: 32

Construction Endorsements	
E3	Hydrostatic Testing
E4	Hot Tap Steel Pipe
E5	Install CP Test Points

10. Standard Pressure Control
9 Unit Stds
Credits: 78

11. Complex Pressure Control
2 Unit Stds
Credits: 60

Pressure Control Endorsement	
E13	GMS Leakage Response

12. Network Leakage Response
13 Unit Stds
Credits: 112

Licensed Gas Fitters working on GMS equipment with a capacity no greater than 25 m3/h or 12 m3/hr

13. Replace GMS < 25m3/hr
6 Unit Stds
Credits: 39

14. Leakage Response GMS < 25m3/hr
8 Unit Stds
Credits: 64

15. Disconnect or reconnect a GMS <12m3/hr for Commercial Reasons
3 Unit Stds
Credits: 11

Appendix 3 CoC Types, Permitted Actives, Prerequisite Requirements & Unit Standards

Refer to attachment: GIP009 Appendix 3, CoC Types, Permitted Activities & Unit Standards

Important Note:

The New Zealand Qualifications Framework (NZQF) is the definitive source for accurate and current information on quality assured qualifications in New Zealand. The NZQA website provides an overview of New Zealand qualifications and information about the purpose, types and levels of qualifications.

Further information regarding the New Zealand Certificates and Unit Standards referenced in this Protocol is available on the NZQA website (www.nzqa.govt.nz/) then search by Qualification or Unit Standard number.

As Qualifications and Unit Standards can be reviewed at any time the NZQA framework should always be accessed for the most up to date information.

Appendix 4 Transition Requirements to new CoC's

This Table shows the requirements for holders of existing CoC's to obtain the new CoC's.

Existing CoC	Action at renewal date	New CoC Option	Additional Requirements			
			Unit Std.	Title		
Authorised Restricted Access	Complete refresher.	Authorised Restricted Access				
Network Induction	Holder permitted 12 months to transition to new CoC.	2. Safety Induction	17593	Apply safe work practices		
		3. Safe Working	6401	Provide First Aid		
			6402	Provide basic life support		
			3271	Suppress fire with hand extinguishers		
			18426	Demonstrate knowledge of hazards associated with confined spaces		
		30265	Apply health and safety risk assessment to a job role			
Network General	Holder permitted 12 months to transition to new CoC.	3. Safe Working	18426	Demonstrate knowledge of hazards associated with confined spaces		
			30265	Apply health and safety risk assessment to a job role		
		4. Gas Foundation	11328	Gain approvals/notifications for works		
			12507	Use hand-held gas leakage detection equipment		
			17596	Demonstrate knowledge of safety observer responsibilities in the workplace		
			20869	DKO notifiable works and work permits typical of infrastructure work sites		
			25510	Operate an atmospheric testing device to determine a suitable atmosphere exists to work safely		
			30265	Apply health and safety risk assessment to a job role		
			31957	DKO working safely as a general worker on a worksite under temporary traffic management		
		5. Replace GMS < 25m ³ /hour	11328	Gain approvals/notifications for works		
			18426	Demonstrate knowledge of hazards associated with confined spaces		
			30265	Apply health and safety risk assessment to a job role		
			30382	Install & change low-capacity gas measurement systems		
			30383	Restore supply and recommission a low-capacity installation after an interruption.		
				32041	Demonstrate knowledge of standard gas pressure control equipment and metering stations	
		6. PE Pipelaying Only			10988	Insert PE pipe into a casing pipe in a gas network
					11328	Gain approvals/notifications for works
					18426	Demonstrate knowledge of hazards associated with confined spaces
					20869	DKO notifiable works and work permits typical of infrastructure work sites

Existing CoC	Action at renewal date	New CoC Option	Additional Requirements	
			Unit Std.	Title
			25610	Demonstrate knowledge of equipment and operations for jointing polyethylene pipe for a network.
			30265	Apply health and safety risk assessment to a job role
			31448	Operate and maintain small plant for infrastructure works
			32035	Demonstrate and apply knowledge of excavation, backfill and compaction for a gas network
Construction Pipelaying	Holder permitted 12 months to transition to new CoC.	6. PE Pipelaying Only	11328	Gain approvals/notifications for works
			10988	Insert PE pipe into a casing pipe in a gas network
			18426	Demonstrate knowledge of hazards associated with confined spaces
			20869	DKO notifiable works and work permits typical of infrastructure work sites
			25610	Demonstrate knowledge of equipment and operations for jointing polyethylene pipe for a network.
			30265	Apply health and safety risk assessment to a job role
			31448	Operate and maintain small plant for infrastructure works
			32035	Demonstrate and apply knowledge of excavation, backfill and compaction for a gas network
Construction Service Laying	Complete refresher.	7. Construct PE Services		
Construction of Mains & Services	Complete refresher.	8. Construct PE Mains		
Construction of Mains & Services	Complete refresher.	9. Construct Steel Mains & Services		
Network Standard Pressure Control	Complete refresher.	10. Standard Pressure Control.		
Network Advanced Pressure Control	Complete refresher.	11. Complex Pressure Control		
Leakage Response	Complete refresher.	12. Network Leakage Response		
Network Operations	Complete refresher.	10. Standard Pressure Control		
	Complete refresher.	12. Network Leakage Response		
Odorant Survey	Complete refresher.	E6. Odorant Survey		
CP Survey	Complete refresher.	E7. CP Survey		

Existing CoC	Action at renewal date	New CoC Option	Additional Requirements	
			Unit Std.	Title
Mark-out, stand-over, location survey	Complete refresher.	E8. Mark-outs & Stand-overs		
Leakage Survey	Complete refresher.	E9/E10. Leakage Survey		
GMS Disconnection/Reconnection	Complete refresher.	13. Gas Fitter - GMS Change, Disconnect, and/or Reconnect		
GMS Leakage Response	Complete refresher.	14. Gas Fitter – Gas Leakage Response on GMS <25m3/hr		