



Competency standard for petroleum and gas well drilling and well servicing (2014)

Petroleum and Gas Inspectorate

Version 1
December 2014

Version number	Date	Date of effect	Comments
V1 (2007)	13 September 2007	1 January 2009	See section 54AA and 166 of P&G Regulation.
V2 (2010)	25 January 2010	1 January 2011	The DRT03 Drilling Training Package was superseded by the RII09v1 Resources and Infrastructure Industry Training Package.
V1 (2011)	24 November 2011	1 January 2012	Includes drilling qualifications and competencies from the RII09v2 Resources and Infrastructure Industry Training Package.
V1 (2014)	19 December 2014	1 January 2015	Includes RII Well servicing competencies.

Approved for release



A/Chief Inspector, Petroleum and Gas

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Introduction

On 26 April 2006, in his recommendations following the inquest into the death of Mr Scott Karajic at Berwyndale South in February 2003, the Queensland State Coroner stated—

“I recommend that the Petroleum and Gas Inspectorate consult with participants in the gas drilling and extraction industry to design an education package that should then be mandated by regulation. I recommend that the package address the training needs of rig workers, supervisors and senior drilling company personnel. In the case of rig managers and supervisors, I recommend that the education package mandate a tertiary education course as a component of the required qualifications.”

The [then] Queensland Government accepted this recommendation and agreed to implement it. Since that time there has been consultation with industry and other State regulators, as to how this can best be achieved in practice.

The **Competency Standard for Petroleum and Gas Well Drilling and Well Servicing (2014) Version 1**, hereafter referred to as ‘the Standard’, provides a positive way forward to gaining full operational competency in the petroleum and gas drilling and well servicing industries.

Competency under the Standard is based on qualifications under the nationally recognised Resources and Infrastructure Industry (RII) Training Package. Due to the recent variations in rig design and skill requirements for differing operations the Standard has moved from mandating specific elective competencies and focuses instead on nationally recognised RII qualifications. The Standard requires the attainment of minimum qualifications specific to positions held on both drilling and well servicing rigs.

The Standard lists the minimum level of qualification that a person must attain, or be enrolled in, to be competent in an operational position on a drilling, or well service rig. These are minimum requirements only and overarching obligations to ensure all workers are competent to undertake all tasks required of them remain with the safety management plan obligations under s674 and 675 of the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act).

The Standard contains three vital elements which are:

1. Nationally accepted qualifications for drilling and well servicing industries
2. Identifying mechanisms by which these qualifications may be achieved
3. Showing how compliance can be achieved.

The Standard includes qualifications relating to well servicing activities, as these activities are identified as high risk activities that play a significant part in petroleum and gas extraction. The Standard is intended to ensure each person conducting drilling or well servicing activities are qualified or undergoing training to become qualified as appropriate for the person’s position.

Coal Seam Gas (CSG) drilling and well servicing rigs generally require positions such as Leasehand, Floorman/Motorman, Derrickman, Assistant Driller, Driller, Tool Pusher/Tourpusher, etc. to perform the same functions as traditional conventional drilling.

Table A lists mandatory minimum competency requirements / qualifications for positions to undertake drilling for petroleum (oil and gas), as defined by well design and operational structure.

Table B lists mandatory minimum competency requirements / qualifications for positions to undertake workover or well servicing for petroleum and natural gas drilling (oil and gas) as defined by well design and operational structure.

Table C lists recommended minimum competency requirements / qualifications that may apply to positions operating rigs drilling for minerals or coal with an expectation of encountering natural gas (oil and gas) as defined by well design and operational structure. These activities are generally not regulated under the P&G Act.

The Standard focuses on qualifications from the RII. Mapping for equivalent unit comparisons (from old to new units of competence) is available from SkillsDMC (www.skillsdmc.com.au) who is the National Industry Skills Council for the Resources and Infrastructure sectors.



Application of the Standard

In accordance with section 54AA of the Petroleum and Gas (Production and Safety) Regulation 2004 (P&G Regulation), the Standard applies to operators of drilling operating plant that drill prescribed wells as defined in the P&G Act. The term drilling 'operating plant' in the P&G Act includes operating plant used to:

1. drill a prescribed well
2. complete, maintain or work on a prescribed well for the production of petroleum.

The Standard includes qualifications for positions on drilling and well servicing rigs. The Standard also applies for operating plant used to drill or service a water observation bore and water supply bore. The Standard takes effect as of 1 January 2015. Transitional arrangements apply until 1 January 2016 (see section 6).

All drilling and well servicing rig operators should ensure the Standard is integrated into each Safety Management Plan (SMP) for the plant. The SMP must demonstrate all workers meet the competencies (i.e. the qualifications) required under the Standard or are enrolled to complete training necessary to ensure compliance with this Standard. Failure to comply with the Standard may result in cessation of operations until the requirements are met or demonstrated.

All petroleum and gas tenure holder operators must also ensure, as part of their 'contractor management', that each drilling and/or well servicing operator meets the requirements of legislation and the Standard before operations commence. Tenure holders must also undertake appropriate audits to ensure ongoing compliance.

The overarching requirement from s675 of the P&G Act is that each person must have all the necessary competencies to undertake the allocated work they are assigned to perform. Accordingly, the competency/qualification requirements in the Standard are a minimum standard to be met and will need to be augmented by additional site training and formal assessment in accordance with those identified job requirements (e.g. driving skills).

Means of compliance

Notwithstanding the general requirements of s675(g) and (h) of the P&G Act, section 54AA of the P&G Regulation requires the operator of the drilling and well servicing operating plant to ensure a rig worker meets the competencies identified for their position / title in the Standard. An extract of section 54AA is provided below.

54AA Operator to ensure competency requirements are met

- (1) The operator of a drilling operating plant must ensure—
 - (a) each person working on the drilling operating plant that is drilling a prescribed well at the plant meets the competencies for drilling a prescribed well (the well drilling competencies) identified for the person's position under the drilling and servicing competency standard; and
 - (b) each person working on the drilling operating plant that is servicing a prescribed well at the plant meets the competencies for servicing a prescribed well (the well servicing competencies) identified for the person's position under the drilling and servicing competency standard.
- (2) If the drilling operating plant is also used to drill or service a bore, the operator must also ensure—
 - (a) each person working on the drilling operating plant that is drilling the bore meets the well drilling competencies; and
 - (b) each person working on the drilling operating plant that is servicing the bore meets the well servicing competencies.
- (3) However, subsection (1)(a) or (2)(a) does not apply if the person is—
 - (a) undergoing training for the well drilling competencies; and
 - (b) acting under the direct supervision of a competent person for the drilling operating plant.
- (4) Also, subsection (1)(b) or (2)(b) does not apply if the person is—
 - (a) undergoing training for the well servicing competencies; and
 - (b) acting under the direct supervision of a competent person for the drilling operating plant.
- (5) In this section—

drilling and servicing competency standard means the document titled 'Competency Standard for Petroleum and Gas Well Drilling and Well Servicing (2014)' published on the department's website.

servicing, in relation to a prescribed well or bore, includes—
 - (a) completing, maintaining or working on the well or bore; and
 - (b) plugging and abandoning the well or bore.

In simple terms there are two options to comply with section 54AA of the P&G Regulation:

1. A person has achieved the required competencies listed for their position title in the Standard (i.e. attained the relevant RII qualification for the position listed in Table A, B or C) or
2. A person is undergoing training for the required competencies listed for their position title in the Standard (i.e. undergoing training to attain the relevant RII qualification) and is working under the direct supervision of a competent person.

To achieve option 2, a number of conditions will all need to be met. These include:

- **Evidence of 'undergoing training'**

To comply with section 54AA (3)(a) or (4)(a) of the P&G Regulation, evidence from a Registered Training Organisation (RTO) or certified assessor (for Certificate IV Training and Assessment) is required that confirms the person is enrolled in a course or is being assessed in training.

- **Direct supervision**

Section 54AA (3)(b) and (4)(b) of the P&G Regulation uses the term 'acting under the direct supervision of'. This is not defined in the P&G Regulation. For the purpose of interpreting this term for use under the Standard 'direct supervision' is defined as:

“The person conducting the work has been clearly instructed by a competent person on the site of the work and the person supervising maintains the ability for positive contact with that person, (i.e. they can talk face-to-face if need be) should a question arise”.

In essence, this means that the competent person supervising must be on site and capable of providing face-to-face supervision as required on each and every shift. The person supervising must be capable of discharging their obligations to each and every person under their supervision.

The holding of a Diploma or Advanced Diploma is not in itself sufficient unless the person can demonstrate they have the ‘hands on’ experience for the role that they are supervising. Industry experience in the role being supervised may not in itself mean a person is competent to supervise.

- **Competent person**

In most cases rig crews are undergoing training as permitted under section 54AA (3)(a) or (4)(a) of the P&G Regulation; however, this means that an operationally competent person is also required to supervise them.

In this Standard competent person has the same meaning as the Work Health and Safety Regulation 2011 as set out below:

Competent person means a person who has acquired through training, qualification or experience the knowledge and skills to carry out the task.

- **Evidence of competent people**

In order for the inspectorate to be satisfied the operator is complying with s54AA of the P&G Regulation, the operator must ensure there is evidence that supports all the requirements above. Evidence must be readily available on the rig or at the inspectorate’s request.

The evidence may include:

- Qualifications and / or Statements of Attainment
- Experience and / or documented evidence for the person(s) who will directly (i.e. on site) supervise the workers on the rig.

Failure to have the records is an offence under section 678A of the P&G Act.



National competency requirements

Competencies for positions on drilling and well servicing rigs under the Standard are based on the qualifications of the RII. The RII was developed in accordance with the requirements of the national Australian Qualifications Framework (AQF). Registration of training providers as RTOs and course accreditation is undertaken by the Australian Skills Quality Authority (ASQA).

The Standard refers exclusively to the RII training package. RTOs accredited to award RII qualifications must develop vocational education and training (VET) courses to meet the qualification level for each position listed in Table A, B and C and the courses must be accredited by ASQA. Rather than specifying particular competencies or mandating electives this version of the standard simply requires a qualification level to be met.

Attainment of these qualifications does not relieve operators of their responsibilities under s675 of the P&G Act and in sections 54A and 54B of the P&G Regulation, to undertake skills assessment and training to enable each rig worker to carry out their work. Each individual skills assessment may well identify other necessary skills (such as first aid training, driving and specialist task skills such as well completion) that will require further training.

The Standard requires the relevant national AQF qualification that must be held by each position with the exception of persons who must undergo training toward the levels indicated. The operator must ensure each person meets the required competency for the position and ensure that the appropriate competencies are maintained.

Table A – Mandatory minimum qualifications to undertake drilling for petroleum (oil and gas)

Table A[^] lists mandatory minimum competency / qualification level for positions undertaking drilling for petroleum and (oil and gas), as defined by well design and operational structure.

Table A – Mandatory minimum qualifications[^]

Positions undertaking drilling for petroleum (including natural gas, CSG, tight gas, shale gas)

Position	Qualification
Roustabout Leasehand Utility Worker	Part – Certificate II in Drilling Oil/Gas (On Shore)*
Floorman Motorman	Certificate II in Drilling Oil/Gas (On Shore)
Derrickman	Certificate III in Drilling Oil/Gas (On Shore)
Assistant / Trainee Driller	Certificate III in Drilling Oil/Gas (On Shore)
Driller	Certificate IV in Drilling Oil/Gas (On Shore)
Rig Manager Toolpusher Night Push	Diploma in Drilling Oil/Gas (On Shore)

Note: [^] Elective units can be selected to ensure that people obtain competencies to match the position and task/duties being performed.

* For Leasehand positions core units only and any other training required to perform the role competently.

Table B – Mandatory minimum qualifications to undertake well servicing on petroleum wells (oil and gas)

Table B^ lists mandatory minimum competency / qualification level for positions undertaking workover or well servicing on petroleum wells (oil and gas) as defined by well design and operational structure.

Table B – Mandatory minimum qualifications^

Positions undertaking well servicing on petroleum wells (including natural gas, CSG, tight gas, shale gas)

Position	Qualification
Floorman Operator Leasehand	Part – Certificate II in Well Servicing Operations*
Lead Floorman Motorman Hand**	Certificate II in Well Servicing Operations
Derrickman/hand Assistant Driller Mud Tester	Certificate III in Well Servicing Operations
Driller	Certificate IV in Well Servicing Operations
Rig Manager Toolpusher Night Push	Diploma in Well Servicing Operations

Note: ^ Elective units can be selected to ensure that people obtain competencies to match the position and task/duties being performed.
 * Lease hand core units only and any other training required to perform the role competently.
 ** Lead Motorman/Hand is not to be confused with 'rig mechanics'. Some lead motorman/hand roles require mechanical qualifications.

Table C – Recommended minimum qualifications to undertake drilling for minerals or coal

Table C lists recommended minimum competency / qualification level for positions undertaking drilling for minerals or coal where a risk of encountering petroleum (oil and gas including, natural gas, CSG, tight gas and shale gas etc.) exist, as defined by well design and operational structure.

These activities are generally not regulated under the P&G Act.

Table C – Recommended minimum qualifications

Positions undertaking drilling for minerals or coal with an expectation of encountering petroleum (including oil, natural gas, CSG, tight gas, shale gas)

Position	Qualification
Utility Worker	Part – Certificate II in Drilling Operations
Driller's Assistant	Certificate II in Drilling Operations
Driller	Certificate III in Drilling Operations
Senior Driller	Certificate IV in Drilling Operations
Drilling Supervisor	Diploma in Drilling Operations

Note: Where there is an expectation or potential for a risk of encountering petroleum (including natural gas and CSG) it is recommended that well control qualifications are held by the Driller.

In those circumstances where a drilling rig normally used to drill for mineral or coal is operated for the purpose of drilling for petroleum (including natural gas and CSG) the qualifications listed in Table A must be held.

To access the training packages in table A, B and C including each unit of competence in the Standard, visit www.training.gov.au

SkillsDMC – National Industry Skills Council at www.skillsdmc.com.au

Mechanisms by which competencies may be achieved

There are a number of acceptable methods for training and assessment of competencies.

1. A company may use a RTO accredited to deliver, conduct and assess the specified units of competence in Table A, Table B and Table C. An accredited RTO will issue Statements of Attainment and certified qualifications on completion of the national competencies. A drilling company may be a registered RTO in their own right or
2. A company may use an internal or external trainer and assessor who hold the relevant trainer and assessor qualifications as well as the recognised competencies. The company can be affiliated with a RTO or
3. A company may use a qualified content expert in conjunction with a qualified assessor affiliated with a RTO:
 - The content expert must hold the qualification being assessed.
 - The assessor must hold the Certificate IV training and assessment in line with current Standards for NVR RTOs or
4. A person may be considered to have met the required competencies if it can be demonstrated that they have completed an equivalent competency (e.g. international competencies). For rig workers who have undertaken other oil and gas drilling training it will be necessary for the operators to **map the workers competency** to the equivalent RII training package qualifications in this Standard, and arrange gap training if necessary.

Timetable for compliance/Transitional arrangements

Competencies for drilling rig workers

From 1 January 2015 until 1 January 2016, a person may comply with the Standard by complying with the previous standard (2011 v1) or by complying with the requirements listed in section 4 of this document.

From 1 January 2016, the requirements of section 4 of this document apply and operators must ensure persons carrying out work on drilling rigs must either:

1. have achieved the required qualification for their position title or
2. are undergoing training for the required qualification and working under the **direct supervision of a competent person**.

Competencies for well servicing rig workers

Considering RTOs need to prepare for delivery of the well servicing competencies – until 1 January 2016 a person may comply with the Standard by complying with the previous standard (2011 v1) or by complying with the requirements listed in section 4 of this document.

From 1 January 2016 the requirements of section 4 of this document apply and operators must ensure well servicing workers have either:

1. have achieved the required qualification for their position title or
2. are undergoing training for the required qualification and working under the **direct supervision of a competent person**.

Note that the P&G Regulation allows a person to work on a rig if they are in the process of undergoing training and are under the direct supervision of a suitably competent person. This has been provided to allow for the practical aspects of the competency based training and assessment to take place. It is **not** a means of routine compliance for day-to-day operations.

For enquiries, please email gassafe@dnrm.qld.gov.au

Appendix A – Glossary

Australian Qualifications Framework (AQF)

The AQF establishes the quality of Australian qualifications. The AQF is the national policy for regulated qualifications in the Australian education and training system. It incorporates the quality assured qualifications from each education and training sector into a single comprehensive national qualifications framework. See – www.aqf.edu.au

Australian Skills Quality Authority (ASQA)

The ASQA is the national regulator for Australia's vocational education and training (VET) sector. ASQA regulates courses and training providers to ensure nationally approved quality standards are met. See www.asqa.gov.au

National Vet Regulator (NVR)

The Standards for NVR Registered Training Organisations 2012 are the standards ASQA uses to ensure nationally consistent, high-quality training and assessment across Australia's vocational education and training (VET) system. The standards are used by ASQA as an instrument in protecting the interests of all students undertaking vocational education and training in Australia. See – www.asqa.gov.au/about-asqa/national-vet-regulation/standards-for-nvr-registered-training-organisations.html

Operating plant (for the purposes of this Standard) refers to drilling rigs and workover rigs defined under section 670(2) of the P&G Act:

An “operating plant” is any of the following—

- (a) a facility used to explore for, produce or process petroleum, including machinery used for maintaining, repairing, converting or decommissioning a petroleum well

Example of machinery used for maintaining or repairing a petroleum well—machinery known in the petroleum and gas industry as a workover rig.

Petroleum well is defined in the P&G Act as:

petroleum well—

1. A petroleum well is a hole in the ground made or being made by drilling, boring or any other means—
 - (a) to explore for or produce petroleum or
 - (b) to inject petroleum or a prescribed storage gas into a natural underground reservoir or
 - (c) through which petroleum or a prescribed storage gas may be produced.
2. For item 1, a prescribed storage gas is produced when it is recovered or released to ground level from a natural underground reservoir in which it has been contained or from which it is extracted.
3. A petroleum well includes the casing for the well and any wellhead for the well attached to it.
4. To remove any doubt, it is declared that a petroleum well does not include any of the following—
 - (a) a water observation bore
 - (b) a water supply bore
 - (c) an existing Water Act bore
 - (d) a seismic shot hole or shallow hole drilled to work out a geological structure.


Prescribed well is defined in the P&G Regulation as:

prescribed well means—

- (a) a petroleum well or
- (b) a well under the 1923 Act

Registered Training Organisation (RTO)

Registered Training Organisations (RTOs) are providers and assessors of nationally recognised training. Only RTOs can deliver nationally recognised courses and accredited Australian Qualifications Framework (AQF) VET qualifications.



RTOs must meet the current Australian Quality Training Framework 2010 (AQTF 2010) (NVR) standards. This ensures the quality of Vocational Education and Training (VET) services throughout Australia.

Training organisations register to provide nationally recognised training with relevant state or territory registration authorities.

When registering the RTO must state its scope of registration detailing:

- The training or assessment it intends to deliver
- The fields or industries in which it may deliver training or assessment
- The maximum level of qualifications it may issue.

To ensure an RTO continues to deliver quality training or assessment, its registration must be renewed with the relevant state or territory registering authority at least every five years. The registering authority can audit the RTO at any time during its period of registration.

Types of RTOs

RTOs include TAFE colleges and institutes, adult and community education providers, private providers, community organisations, schools, higher education institutions, commercial and enterprise training providers, industry bodies, and other organisations that meet registration requirements.

- All registered training organisations are entered into the Training Australia database, accessible at www.training.gov.au, listing their details and scope of registration.

A company or training organisation that is not registered may offer training but cannot issue nationally recognised qualifications.