

# **Competency standard for petroleum and gas well drilling and well servicing**

**Petroleum and Gas Inspectorate**

**Version 4**

**1 September 2018**

**Table: Document history**

Version number	Date of publication	Date of effect	Key changes
V1 (2007)	13 September 2007	1 January 2009	
V2 (2011)	24 November 2011	1 January 2012	DRT03 Drilling Training Package superseded by the RII09v1 Resources and Infrastructure Industry Training Package. Includes drilling qualifications and competencies from the RII09v2 Resources and Infrastructure Industry Training Package.
V3 (2014)	19 December 2014	1 January 2015	Includes RII well servicing competencies.
V4 (2018)	1 September 2018	1 September 2018	Revised to align with the commencement of the Petroleum and Gas (Safety) Regulation 2018

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# 1 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.

This Competency standard for petroleum and gas well drilling and well servicing provides a positive way forward to gaining full operational competency in the petroleum and gas drilling and well servicing industries.

Competency under this Standard is based on qualifications under the nationally recognised Resources and Infrastructure Industry (RII) training package. Due to variations in rig design and skill requirements for differing operations, rather than mandating specific elective competencies, this Standard focuses on nationally recognised RII qualifications. This Standard requires the attainment of minimum qualifications specific to positions held on both drilling and well servicing rigs.

This 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. Overarching obligations to ensure all workers are competent to undertake all tasks required of them, remain within the safety management system (SMS) obligations under the *Petroleum and Gas (Production and Safety) Act 2004* (P&G Act).

This Standard contains three key components:

1. Nationally accepted qualifications for drilling and well servicing industries.
2. Identifying mechanisms to achieve qualifications.
3. Modelling how compliance can be achieved.

Due to the high-risk nature of drilling and well servicing, this Standard includes qualifications to ensure persons conducting these activities are skilled or undergoing training to become appropriately qualified.

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.

This 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](http://www.skillsdmc.com.au)), the National Industry Skills Council for the resources and infrastructure sectors.

## **2 Application**

The Petroleum and Gas (Safety) Regulation 2018 (P&G Regulation) requires operators of drilling operating plant to ensure workers meet the competencies in this Standard for the worker's position.

This Standard includes qualifications for positions on drilling and well servicing rigs, and also applies when the plant is used to drill or service a water observation bore, a water injection bore or a water supply bore. This revision takes effect as of 1 September 2018 to align with the commencement of the P&G Regulation.

All drilling and well servicing rig operators should ensure this Standard is integrated into the plant's SMS to demonstrate that all workers meet the required competencies or are enrolled to complete the training required for compliance with this Standard. Failure to comply with this 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 this Standard before operations commence. Tenure holders must also undertake appropriate audits to ensure ongoing compliance.

A SMS requirement in the P&G Act is for each person to have all the necessary competencies to undertake the allocated work they are assigned to perform. The competency requirements in this Standard are a minimum standard to be met and will need to be augmented by additional site training and formal assessment in accordance with identified position requirements.

### 3 Means of compliance

In addition to the SMS requirements of the P&G Act, the P&G Regulation requires the operator of the drilling and well servicing operating plant to ensure workers meet the competencies identified for their position in this Standard.

There are two options for compliance with the P&G Regulation.

Option 1 requires a person to have achieved the required competencies listed for their position title in this Standard by attaining the relevant RII qualification for the position listed in Table A or B.

Option 2 requires a person to be undergoing training for the competencies, and to be acting under the direct supervision of a competent person. Suitable evidence for meeting these conditions are:

a) Training

Evidence from a Registered Training Organisation (RTO) or certified assessor (for Certificate IV Training and Assessment) that confirms the person is enrolled in a course or is being assessed in training.

b) Direct supervision

The person conducting the work has been clearly instructed by a competent person on their work site. The competent person must be able to provide face-to-face supervision every shift, and must be capable of discharging their obligations to each person under their supervision.

c) Competent person

A competent person for the purpose of this Standard has the same meaning as the Work Health and Safety Regulation 2011. A competent person has acquired through training, qualification or experience the knowledge and skills to carry out the task.

Note that 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.

In order for the inspectorate to be satisfied the operator is compliant with the safety requirement in the P&G Regulation which applies to this Standard, the operator must ensure there is evidence to support all the above requirements. Evidence must be readily available at the work site or at the inspectorate's request.

The evidence may include:

- i. Qualifications and / or Statements of Attainment
- ii. Documented 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.

While the P&G Regulation allows a person to work on a rig if they are in the process of undergoing training and under the direct supervision of a competent person, this has only 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.

### 4 National competency requirements

Competencies for positions on drilling and well servicing rigs under this 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).

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

Attainment of these qualifications does not relieve operators of their responsibilities under the P&G Act and the P&G Regulation to undertake skills assessment and training to undertake their role. Each individual skills assessment will potentially identify other necessary role skills (such as first aid training, driving and specialist task skills such as well completion) that will require further training.

This Standard outlines 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<sup>1</sup> to undertake drilling for petroleum (including natural gas, CSG, tight gas, shale gas)**

Position	Qualification
<ul style="list-style-type: none"> <li>• Roustabout</li> <li>• Leasehand</li> <li>• Utility Worker</li> </ul>	<ul style="list-style-type: none"> <li>• Part – Certificate II in Drilling Oil/Gas (On Shore)<sup>2</sup></li> </ul>
<ul style="list-style-type: none"> <li>• Floorman</li> <li>• Motorman</li> </ul>	<ul style="list-style-type: none"> <li>• Certificate II in Drilling Oil/Gas (On Shore)</li> </ul>
<ul style="list-style-type: none"> <li>• Derrickman</li> </ul>	<ul style="list-style-type: none"> <li>• Certificate III in Drilling Oil/Gas (On Shore)</li> </ul>
<ul style="list-style-type: none"> <li>• Assistant / Trainee Driller</li> </ul>	<ul style="list-style-type: none"> <li>• Certificate III in Drilling Oil/Gas (On Shore)</li> </ul>
<ul style="list-style-type: none"> <li>• Driller</li> </ul>	<ul style="list-style-type: none"> <li>• Certificate IV in Drilling Oil/Gas (On Shore)</li> </ul>
<ul style="list-style-type: none"> <li>• Rig Manager</li> <li>• Toolpusher</li> <li>• Night Push</li> </ul>	<ul style="list-style-type: none"> <li>• Diploma in Drilling Oil/Gas (On Shore)</li> </ul>

<sup>1</sup> Elective units can be selected to ensure people obtain competencies to match the position and duties performed.  
<sup>2</sup> For Leasehand positions core units only and any other training required to perform the role competently.

**Table B – Mandatory minimum qualifications<sup>3</sup> to undertake well servicing on petroleum wells (including natural gas, CSG, tight gas, shale gas)**

Position	Qualification
<ul style="list-style-type: none"> <li>Floorman</li> <li>Operator</li> <li>Leasehand</li> </ul>	<ul style="list-style-type: none"> <li>Part – Certificate II in Well Servicing Operations <sup>4</sup></li> </ul>
<ul style="list-style-type: none"> <li>Lead Floorman</li> <li>Motorman Hand <sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>Certificate II in Well Servicing Operations</li> </ul>
<ul style="list-style-type: none"> <li>Derrickman/ hand</li> <li>Assistant Driller</li> <li>Mud Tester</li> </ul>	<ul style="list-style-type: none"> <li>Certificate III in Well Servicing Operations</li> </ul>
<ul style="list-style-type: none"> <li>Driller</li> </ul>	<ul style="list-style-type: none"> <li>Certificate IV in Well Servicing Operations</li> </ul>
<ul style="list-style-type: none"> <li>Rig Manager</li> <li>Toolpusher</li> <li>Night Push</li> </ul>	<ul style="list-style-type: none"> <li>Diploma in Well Servicing Operations</li> </ul>

## 5 How to achieve competencies

There are four acceptable methods for training and assessment of competencies.

- a) A company may use a RTO accredited to deliver, conduct and assess the specified units of competence in Table A and Table B. 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
- b) A company may use an external trainer and/or assessor who holds a Certificate IV Training and Assessment, as well as the recognised competencies. The company can be affiliated with a RTO; or
- c) A company may use a qualified content expert in conjunction with a qualified assessor affiliated with a RTO:
  - i. The content expert must hold the qualification being assessed; and
  - ii. The assessor must hold the Certificate IV Training and Assessment; or
- d) 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.

<sup>3</sup> Elective units can be selected to ensure people obtain competencies to match the position and duties performed.

<sup>4</sup> For Leasehand positions core units only and any other training required to perform the role competently.

<sup>5</sup> Lead Motorman/Hand is not to be confused with 'rig mechanics'. Some lead motorman/hand roles require mechanical qualifications.



## Appendix A – Glossary

Term	Definition
Australian Qualifications Framework (AQF)	<p>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.</p> <p>See – <a href="http://www.aqf.edu.au">www.aqf.edu.au</a></p>
Australian Skills Quality Authority (ASQA)	<p>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.</p> <p>See – <a href="http://www.asqa.gov.au">www.asqa.gov.au</a></p>
National Vet Regulator (NVR)	<p>ASQA uses the <i>Standards for Registered Training Organisations (RTOs) 2015</i> (the RTO Standards) to ensure nationally consistent, high-quality training and assessment across Australia's VET system. The RTO Standards are used by ASQA as an instrument in protecting the interests of all students undertaking vocational education and training in Australia. See – <a href="http://www.asqa.gov.au/about/australias-vet-sector/standards-registered-training-organisations-rtos-2015">www.asqa.gov.au/about/australias-vet-sector/standards-registered-training-organisations-rtos-2015</a></p>
Operating plant	<p>Refers to drilling rigs and workover rigs as per the definition in the P&amp;G Act.</p>
Registered Training Organisation (RTO)	<p>RTOs are providers and assessors of nationally recognised training. Only RTOs can deliver nationally recognised courses and accredited AQF VET qualifications.</p> <p>RTOs must comply with the current AQF and RTO Standards as part of the conditions of their registration. This ensures the quality of VET services throughout Australia.</p> <p>Training organisations register to provide nationally recognised training with relevant state or territory registration authorities.</p> <p>When registering, the RTO must state its scope of registration detailing:</p> <ul style="list-style-type: none"> <li>a) the training or assessment it intends to deliver</li> <li>b) the fields or industries in which it may deliver training or assessment</li> <li>c) the maximum level of qualifications it may issue.</li> </ul> <p>To ensure a 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.</p> <p><b>Types of RTOs</b></p> <p>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.</p> <p>All registered training organisations are entered into the Training Australia database (accessible at <a href="http://www.training.gov.au">www.training.gov.au</a>), listing their details and scope of registration.</p> <p>A company or training organisation that is not registered may offer training but cannot issue nationally recognised qualifications.</p>