

# PETROLEUM OPERATIONS

## Competencies for operational roles

### Overview

Operational activities for the exploration and production of onshore petroleum must be undertaken by people with appropriate competencies, including skills, knowledge and experience, to ensure that risks to the environment and the health and safety of workers and the public are managed.

This guideline identifies mandatory competencies for statutory functions and recommends minimum competencies for people work in petroleum operations roles whey they are operating:

- a petroleum drilling rig, undertaking:
  - conventional petroleum drilling, or
  - unconventional petroleum drilling, such as coal seam gas, tight gas or shale gas
- a well servicing rig.

The *Work Health and Safety Act 2011* and *Work Health and Safety (Mines and Petroleum Sites) Act 2013* set clear duties for ensuring people are competent to undertake work safely and manage risks.

### Petroleum operations risks

Petroleum drilling, well servicing and workover operations may present a risk to the environment and the health and safety of workers and the public, where operations:

- intersect pressurised formations (e.g. petroleum or artesian formations)
- intersect aquifers (i.e. groundwater systems)
- interface with the surface environment, i.e. surface water, waste management, dust, infrastructure, fugitive emissions, etc

- expose workers and others to hazards through activities such as construction activities, use of plant, drilling, electricity, exposure to hazardous substances, interaction of mobile plant and pedestrians, uneven ground and unstable loads.

The [petroleum site operator](#) should ensure, either directly or through effective contractor management, that each relevant worker operating a petroleum drilling or well servicing rig meets the competency standards specified in this guideline.

## Petroleum competencies

Certain safety-critical roles at petroleum sites have been prescribed as ‘statutory functions’ in the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014. These are:

- Rig manager (drilling operations)
- Rig manager (well workover and well servicing operations)
- Driller (drilling operations)
- Driller (well workover and well servicing operations).

The mandatory competencies for these statutory functions are specified in [schedule 10A](#) of the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014.

Competencies recommended for other petroleum operations roles are specified in tables 1 and 2 below. A role specified in column A operating a petroleum drilling rig or well servicing rig should hold the qualification specified in Column C, at the level specified in column B.

This guideline does not recommend competencies or the full range of skills and knowledge that all workers at petroleum sites may require, and does not relieve a petroleum site operator or other persons conducting a business or undertaking of their responsibilities under the *Work Health and Safety Act 2011* or the Work Health and Safety (Mines and Petroleum Sites) Regulation 2014 to undertake skills assessment and training to enable each worker to undertake their work.

Workers must be provided with the information, training, instruction or supervision necessary to protect themselves and others from risks to their health and safety arising from work carried out as part of the conduct of the business or undertaking.

The guideline helps address the [NSW Chief Scientist and Engineer’s recommendation 14](#) that the NSW Government introduce ongoing mandatory training and certification requirements for coal seam gas industry personnel, including subcontractors.

## National competency standards

Qualifications for roles on drilling and well servicing rigs are based on the requirements of the Resources and Infrastructure Industry (RII) training package. These qualifications are based on the Australian Qualifications Framework. Registration of training providers is undertaken by the Australian Skills Quality Authority.

For further information on qualifications and units of competence, refer to the Australian Government database on VET in Australia at [www.training.gov.au](http://www.training.gov.au)

## Maintenance of competence

Competencies qualifications are regularly revised and should be current and kept up to date.

Competencies for persons operating petroleum drilling rigs and well servicing rigs are considered to be current if:

- the person holds the qualification specified in the guideline, or
- the person holds the Australian Qualifications Framework (AQF) qualification superseded by the qualification specified the guideline, or
- the person holds a qualification obtained prior to the superseded version, but only for a period of 12 months from the commencement of the qualification specified in the guideline.

For example, if a person holds the Certificate III in Drilling Oil and Gas (Onshore) (RII32013), this qualification will be taken to be current for 12 months from the date of the introduction of a new qualification which supersedes Certificate III Drilling Oil and Gas (Onshore) (RII32015).

## Petroleum drilling rig competencies

**Table 1.** Recommended minimum qualifications for persons working in roles operating a petroleum drilling rig and drilling for petroleum (oil and gas), as defined by well design and operational structure. It also applies when drilling petroleum pilot holes (also known as appraisal holes) and frontier holes.

COLUMN A ROLE	COLUMN B LEVEL	COLUMN C QUALIFICATION
Roustabout, Leasehand, Utility worker	Part Certificate II <sup>1</sup>	Drilling Oil and Gas (Onshore) (RII21115) or any nationally recognised training qualification that is equivalent to that qualification
Floorman, Motorman <sup>2</sup>	Full Certificate II	Drilling Oil and Gas (Onshore) (RII21115) or any nationally recognised training qualification that is equivalent to that qualification
Derrickman	Certificate III	Drilling Oil and Gas (Onshore) (RII32015) or any nationally recognised training qualification that is equivalent to that qualification
Assistant or Trainee Driller	Certificate III	Drilling Oil and Gas (Onshore) plus additional 2 units (RII32015 or RII320094) or any nationally recognised training qualification that is equivalent to that qualification
<b>Driller (statutory function)</b>	Certificate IV	Drilling Oil and Gas (Onshore) (RII41115) or any nationally recognised training qualification that is equivalent to that qualification
Toolpusher, Night Push	Diploma	Drilling Oil and Gas (Onshore) (RII50815) or any nationally recognised training

<sup>1</sup> For positions which require a Part Certificate II, this means the core units only.

<sup>2</sup> A motorman (also known as a motorhand) is not to be confused with a rig mechanic. A motorman/hand has a drilling role, whereas a rig mechanic does not.

		qualification that is equivalent to that qualification
<b>Rig Manager (statutory function)</b>	Diploma	Drilling Oil and Gas (Onshore) (RII50815) or any nationally recognised training qualification that is equivalent to that qualification

### Petroleum well servicing rig competencies

**Table 2.** Recommended minimum qualifications for persons working in positions operating a well servicing rig and undertaking well servicing or workover for petroleum wells (oil and gas), as defined by well design and operational structure.

COLUMN A ROLE	COLUMN B LEVEL	COLUMN C QUALIFICATION
Floorman, Operator, Leasehand	Part Certificate II <sup>3</sup>	Well Servicing Operations (RII21215) or any nationally recognised training qualification that is equivalent to that qualification
Lead Floorman, Motorman/hand <sup>4</sup>	Full Certificate II	Well Servicing Operations (RII21215) or any nationally recognised training qualification that is equivalent to that qualification
Derrickman/hand, Assistant Driller, Mud Tester	Certificate III	Well Servicing Operations (RII32215) or any nationally recognised training qualification that is equivalent to that qualification
<b>Driller</b>	Certificate IV	Well Servicing Operations (RII41215) or any nationally recognised training

<sup>3</sup> For positions which require a Part Certificate II, this means the core units only.

<sup>4</sup> A motorman / hand is not to be confused with a rig mechanic. A motorman / hand has a drilling role, whereas a rig mechanic does not.

<b>(statutory function)</b>		qualification that is equivalent to that qualification
Toolpusher, Night Push	Diploma	Well Servicing Operations (RII51015) or any nationally recognised training qualification that is equivalent to that qualification
<b>Rig Manager (statutory function)</b>	Diploma	Well Servicing Operations (RII51015) or any nationally recognised training qualification that is equivalent to that qualification

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