



Australian Government

RIIWSV303E Operate fluid systems

Release: 1

RIISV303E Operate fluid systems

Modification History

Release	Comments
Release 1	This version first released with RII Resources and Infrastructure Industry Training Package Version 5.0.

Application

This unit describes the skills and knowledge required to operate fluid systems in drilling. It prepares individuals to maintain, repair, operate and monitor fluid pumps, operate and transfer valves and identify and act upon variations in circulating medium during operation.

This unit applies to those working in operational roles, to the level of a Derrickman. They generally perform tasks involving a broad range of skilled applications in a wide variety of contexts, which may involve some discretion and judgement in selecting equipment, services and contingency measures.

Licensing, legislative and certification requirements that may apply to this unit can vary between states, territories, and industry sectors. Users must check requirements with relevant body before applying the unit.

Unit Sector

Drilling (Well Servicing)

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Plan and prepare for fluid operations	1.1 Obtain, read, confirm and apply work instructions 1.2 Access, interpret and apply compliance documentation and confirm work activity is compliant 1.3 Identify and minimise environmental issues and potential hazards, and assess and address risks within scope of own role and according to workplace procedures 1.4 Select and wear personal protective equipment required for work activities 1.5 Confirm personnel coordination requirements at the site are met prior

ELEMENT	PERFORMANCE CRITERIA
	<p>to commencement of work activities</p> <p>1.6 Confirm permits required and prepare written permits to work</p>
2. Maintain and repair fluid pumps	<p>2.1 Check pony rod clamp is fitted as required</p> <p>2.2 Lubricate gear end of pump and check oil levels in gear end of pump</p> <p>2.3 Identify faults and report or rectify immediately as required and within scope of own role</p> <p>2.4 Identify, record and/or report requirement for repair or maintenance of mud pumps</p> <p>2.5 Maintain and replace defective swabs, liner, valves, seats, gauges and wear plates of the fluid end of pump</p>
3. Operate and monitor fluid pumps	<p>3.1 Carry out prestart checks according to workplace procedures</p> <p>3.2 Set or adjust all critical equipment including pop-off valve and/or choke manifold/s to safe operating parameters</p> <p>3.3 Test operational function of all valves and choke manifolds in the fluid system as required</p> <p>3.4 Pressure test system, record in writing and communicate issues identified</p> <p>3.5 Confirm and identify flow path required for operation and pumping parameters</p> <p>3.6 Visually inspect and listen to mud pumps for abnormalities</p>
4. Operate, maintain and repair fluid pumps	<p>4.1 Check required safety lines and restraints are in place, secure and functional</p> <p>4.2 Engage and adjust required equipment as directed by supervisor</p> <p>4.3 Clean all equipment and visually inspect for leaks and proper operation according to specifications</p> <p>4.4 Identify faults and report or rectify immediately as required and within scope of own role</p> <p>4.5 Identify, record in writing and report requirement for repair or maintenance of fluid conditioning equipment</p> <p>4.6 Perform periodic or scheduled preventative maintenance on all fluid treatment units</p>
5. Operate and service transfer valves in fluid pits/tanks or fluid pumps	<p>5.1 Align valves according to manufacturer specifications</p> <p>5.2 Lubricate valve stems according to manufacturer specifications</p> <p>5.3 Clean and inspect transfer valves according to manufacturer specifications</p> <p>5.4 Replace or repair defective parts according to manufacturer specifications</p>
6. Identify and act upon variations in circulating medium	<p>6.1 Monitor, adjust and report pit/tank level</p> <p>6.2 Monitor and report fluid properties</p>

ELEMENT	PERFORMANCE CRITERIA
during operation	6.3 Monitor and report size of cuttings 6.4 Monitor and report volume of fluid returns 6.5 Prepare for emergency situations

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

SKILL	DESCRIPTION
Reading	<ul style="list-style-type: none"> Identifies critical information from the organisational plan, work programs and lease details

Unit Mapping Information

Supersedes and is equivalent to RIIWSV303D Operate fluid systems.

Links

Companion Volume implementation guides is found on VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>