



Australian Government

RIIEGS301E Operate and maintain instruments and field equipment

Release: 1

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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 and maintain instruments and field equipment in the resources and infrastructure industries.

It applies to those working in supervisory and technical specialist roles. They generally work under minimal supervision to undertake a broad range of skilled applications in varied work contexts, using some discretion and judgement in selecting equipment, services or contingency measures.

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

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 use of instruments and field equipment	1.1 Obtain, interpret and confirm work requirements 1.2 Access, interpret and apply documentation required to operate and maintain instruments and field equipment 1.3 Communicate verbally and in writing with relevant personnel using approved communication methods according to workplace procedures 1.4 Select and wear personal protective equipment appropriate for work activities 1.5 Select appropriate type of plant and equipment for work activities 1.6 Perform equipment prestart checks according to manufacturer specifications 1.7 Identify and address potential risks, hazards and

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	environmental issues, and implement control measures according to workplace procedures 1.8 Obtain and interpret emergency procedures, and be prepared for emergency situations
2. Test instruments and field equipment	2.1 Perform safety checks according to workplace procedures 2.2 Identify potential faults in instruments and field equipment 2.3 Label and report damaged or unsafe instruments and field equipment and remove from service according to workplace procedures 2.4 Ensure operational logbooks are up dated according to workplace procedures
3. Calibrate instruments/field equipment	3.1 Closely follow calibration schedules 3.2 Label out calibration instruments and equipment and advise relevant personnel of operatives promptly according to workplace procedures 3.3 Identify causes of incorrect calibration according to workplace procedures 3.4 Perform new base calibration according to workplace procedures 3.5 Recommission instrument and equipment according to workplace procedures 3.6 Prepare compliance and calibration reports as required
4. Operate instruments/field equipment	4.1 Optimise instrument and equipment settings for the particular measurement or analysis 4.2 Perform measurements within the given field and technical constraints 4.3 Assess data against quality control information, known standards and references for accuracy and precision 4.4 Repeat measurements where non-standard results are obtained
5. Maintain instruments and field equipment	5.1 Clean and maintain the plant and equipment, inspect to ensure serviceability and rectify or report any faults or issues to relevant personnel 5.2 Perform minor repairs within scope of own job role 5.3 Replace defective parts and make adjustments according to manufacturer specifications 5.4 Seek help from relevant personnel where difficulties are encountered 5.5 Process maintenance and calibration records according

ELEMENT	PERFORMANCE CRITERIA
	to workplace procedures
6. Commission new instruments and equipment	6.1 Arrange commissioning procedures with manufacturer agent, when required 6.2 Unpack, check and assemble instruments and equipment according to manufacturer warranty requirements 6.3 Calibrate instrument and equipment to meet manufacturer specifications 6.4 Check instrument and equipment performance against manufacturer specifications 6.5 Provide operating instructions available to relevant personnel

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	• Identifies and interprets information from workplace procedures, documentation and regulations
Self-management	• Monitors and minimises own exposure to worksite risks and hazards during activities

Unit Mapping Information

Supersedes and is equivalent to RIIEGS301D Operate and maintain instruments and field equipment.

Links

Companion Volume implementation guides is found on VETNet -

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