



Australian Government

RIIPGP203D Operate compressors

Release: 2

RIIPGP203D Operate compressors

Modification History

Release	Comment
1	This unit replaces RIIPGP203D Operate compressors.
2	Performance Criteria numbering amended. Required frequency and volume of evidence amended in Performance evidence. Substantial amendments made in Assessment Conditions field, including: references to Industry Sectors, assessor and subject matter expert experience requirements, how assessment should be conducted and what it should confirm.

Application

This unit describes a participant's skills and knowledge required to operate compressors in Metalliferous Mining.

This unit is appropriate for those working in operational roles.

Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Unit Sector

Metalliferous mining

Elements and Performance Criteria

1. Plan and prepare for compressor operation	1.1 Access, interpret and apply compressor operation documentation and ensure the work activity is compliant 1.2 Obtain, read, interpret, clarify and confirm work requirements 1.3 Select and wear personal protective equipment appropriate for the activity 1.4 Obtain and interpret emergency procedures, and be prepared for fire/accident/emergency 1.5 Identify and address potential risks, hazards and environmental issues, and implement control measures
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2. Start-up compressor	2.1 Perform pre-start-up checks 2.2 Start-up individual items of equipment and the entire compressor system 2.3 Start-up normally and after maintenance 2.4 Build pressure steadily with no surging 2.5 Stabilise compressor system to produce specified pressures and flows within minimum time
3. Monitor and control the compressor	3.1 Complete routine checks, logs and paper work 3.2 Recognise the signs of potential and actual problems 3.3 Monitor temperatures and lubrication oil and take action as required 3.4 Trim plant to achieve required pressures and flows while maximising plant efficiency
4. Change compressor output	4.1 Predict the need to change compressor output to meet process requirements 4.2 Change compressor output as required 4.3 Manage changes smoothly and in a timely manner
5. Maintain plant effectiveness	5.1 Frequently and critically monitor all plant throughout shift 5.2 Use measured/indicated data and smell, sight, sound and feel as appropriate to monitor plant 5.3 Identify critical equipment/processes and tune their performance 5.4 Identify issues likely to impact on plant performance and take appropriate action 5.5 Predict impact of a change in one unit/area on other plant units/area and communicate this to relevant people 5.6 Test trips and alarms 5.7 Prepare plant for maintenance/vessel entry 5.8 Complete minor maintenance 5.9 Receive plant back from maintenance 5.10 Prepare plant for the introduction of gas and operation
6. Shutdown compressor	6.1 Determine type of shutdown required 6.2 Give advanced warning of shutdown 6.3 Changeover individual items of equipment 6.4 Shutdown individual items of equipment and the entire

	compressor system 6.5 Shutdown in an emergency 6.6 Reset trips and alarms after a shutdown 6.7 Leave plant in a condition ready to restart 6.8 Shut-down for maintenance
7. Conduct housekeeping activities	7.1 Clear work area and dispose of or recycle materials 7.2 Clean and maintain condition of equipment, ensure suitability for use, and address/report issues 7.3 Manage and/or report hazards, and maintain a safe working environment 7.4 Process records

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit. Further information is available in the Resources and Infrastructure Industry Training Package Companion Volume.

Unit Mapping Information

RIIPGP203A Operate compressors

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=88a61002-9a21-4386-aaf8-69c76e675272>

Assessment Requirements for RIIPGP203D Operate compressors

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Performance Evidence

Evidence is required to be collected that demonstrates a candidate's competency in this unit. Evidence must be relevant to the roles within this sector's work operations and satisfy all of the requirements of the performance criteria of this unit and include evidence that the candidate:

- locates and applies applicable legislation, documentation, policies and procedures
- implements requirements, procedures and techniques for safe, effective compressor operations including:
 - identifying issues likely to impact on plant performance and take appropriate action
 - predicting impact of a change in one unit/area on other plant units/area and communicate this to relevant people
- demonstrates completion of operating compressors that safely, effectively and efficiently meets all of the required outcomes on more than one (1) occasion including:
 - performing correct sequencing for starting up equipment
 - correctly operating and monitoring equipment including:
 - starting up compressors,
 - monitoring and controlling compressors,
 - changing compressor output,
 - maintaining plant effectiveness
 - test trips and alarms
 - prepare plant for maintenance/vessel entry
 - complete minor maintenance according to standard procedures
 - prepare plant for the introduction of gas and operation

- performing checks and shutdown in sequence

Knowledge Evidence

The candidate must demonstrate knowledge in compressor operations through:

- apply legislative, organisation and site requirements and procedures for:
 - risk assessment and management
 - statutory compliance
 - work health and safety
- distinguishing between:
 - process gas
 - instrument
 - equipment (electrical/mechanical)
- maintaining compressors
- identifying causes of problems and isolate problems to item of equipment
- applying principles of compressor operation
- identifying the effects of temperature and compression ratio/the need for multi staging
- interpreting pressure/temperature relationships and effects on condensation (e.g. moisture and/or gas)
- applying control of output
- identifying and applying causes of and remedies for surging
- applying methods of resolving problem

Assessment Conditions

- An assessor of this unit must satisfy the requirements of the NVR/AQTF or their successors; and Industry regulations for certification and licensing; and,
- this unit must be assessed in the context of this sector's work environment; and,
- this unit must be assessed in compliance with relevant legislation/regulation and using policies, procedures, processes and operational manuals directly related to the industry sector for which it is being assessed; and,
- assessment may be conducted in conjunction with the assessment of other Units of Competency; and,
- assessment must confirm consistent performance can be applied in a range of relevant workplace circumstances; and,
- assessors must demonstrate the performance evidence, and knowledge evidence as outlined in this Unit of Competency, and through the minimum years of current* work experience specified below in an Industry sector relevant to the outcomes of the unit; or,

- where the assessor does not meet experience requirements a co-assessment or partnership arrangement must exist between the qualified assessor and an Industry subject matter expert. The Industry subject matter expert should hold the unit being assessed (or an equivalent unit) and/or demonstrate equivalence of skills and knowledge at the unit level. An Industry technical expert must also demonstrate skills and knowledge from the minimum years of current work experience specified below in the Industry sector, including time spent in roles related to the unit being assessed; and,
- assessor and Industry subject matter expert requirements differ depending on the Australian Qualifications Framework Level (AQF) of the qualification being assessed and/or Industry Sector as follows:

Industry sector	AQF** Level	Required assessor or Industry subject matter expert experience
Drilling, Metalliferous Mining, Coal Mining, Extractive (Quarrying) and Civil Construction	1	1 Year
	2	2 Years
Drilling, Coal Mining and Extractive (Quarrying)	3-6	3 Years
Metalliferous Mining and Civil Construction	3-6	5 Years
Other sectors	Where this Unit is being assessed outside of the Resources and Infrastructure Sectors assessor and/or Industry subject matter expert experience should be in-line with industry standards for the sector in which it is being assessed and where no Industry standard is specified should comply with any relevant regulation.	

*Assessors can demonstrate current work experience through employment within Industry in a role relevant to the outcomes of the Unit; or, for external assessors this can be demonstrated through exposure to Industry by conducting frequent site assessments across various locations.

**Where a unit is being delivered outside of a Qualification the first numeric character in the Unit code should be considered to indicate the AQF level

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