



Australian Government

RIIPSM308D Monitor and maintain furnace gas efficiency

Release: 2

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Modification History

Release	Comment
1	This unit replaces RIIPSM308A Monitor and maintain furnace gas efficiency
2	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 monitor and maintain furnace gas efficiency 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. Prepare and prepare for monitoring and maintaining furnace gas efficiency	1.1 Access, interpret and apply smelting documentation and ensure the work activity is compliant 1.2 Receive, interpret and clarify verbal and written shift changeover details 1.3 Establish and maintain communication with other personnel 1.4 Select appropriate personal protective equipment for the work activity 1.5 Select appropriate auxiliary equipment 1.6 Carry out equipment pre-start checks 1.7 Identify, address and report potential risks, hazards and environmental issues and implement control measures
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	1.8 Follow emergency procedures 1.9 Use approved dust suppression and extraction methods 1.10 Ensure adequate ventilation to work area before commencing the work activity
2. Maintain efficient operation of furnace gas plant and systems	2.1 Carry out plant and equipment start-up checks and procedures 2.2 Carry out monitoring and control on Distributed Control Systems (DCS) 2.3 Operate and maintain air operated breathing equipment for furnace off-line entry
3. Control furnace gas emissions	3.1 Carry out plant and equipment start-up checks and procedures 3.2 Monitor and operate accretion build-up removal equipment 3.3 Monitor and maintain furnace feed chutes and ensure they are free of blockages, 3.4 Collect samples of molten metal to confirm molten metal quantity and condition of molten metal bath
4. Maintain efficient operation of furnace air injection equipment	4.1 Carry out plant and equipment start-up checks and procedures 4.2 Monitor furnace conditions and operations to identify the correct, efficient operation of the furnace air injection equipment, and report to appropriate personnel 4.3 Identify variances to furnace and air injection equipment operation, record and repair where possible 4.4 Clean furnace air injection equipment/device without causing damage 4.5 Check and record furnace air injection equipment/device position, and recalibrate where outside operating parameters
5. Ensure supply of additives	5.1 Monitor and maintain condition of furnace feed materials 5.2 Monitor furnace additives supply and report to appropriate personnel
6. Maintain plant and equipment efficiency	6.1 Clean plant to maintain condition of all equipment 6.2 Interpret and respond to plant alarms, take corrective actions and notify appropriate personnel 6.3 Check and adjust plant condition 6.4 Install and control stand-by furnace burner equipment 6.5 Inspect air, gas, diesel and combustion supply equipment, report and rectify faults, damaged or inoperable equipment to appropriate personnel

	6.6	Carry out minor plant maintenance and lubrication
	6.7	Provide support for maintenance personnel
7. Shutdown plant and equipment	7.1	Shutdown or isolate plant/equipment
	7.2	Perform post shutdown or isolation checks
	7.3	Pass on shift changeover details to oncoming shift

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

RIIPSM308A Monitor and maintain furnace gas efficiency

Links

Companion Volume implementation guides are found in VETNet -

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