



Australian Government

MEM48019 Monitor secondary steel making operations

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MSATCM508A Monitor secondary steelmaking operations.

Application

This unit of competency defines the knowledge and skills required to monitor the production of slabs prior to rolling.

It applies where a technician will be required to monitor the post steel making processes including adjustments within the ladle and control of the continuous casting of slabs in accordance with parameters provided and standard operating procedures (SOPs).

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

MEM48001 Test the mechanical properties of materials

MEM48004 Interpret basic binary phase diagrams

MEM48014 Recommend a refractory for an application

Competency Field

Metallurgy

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from work information
2. Produce slabs to	2.1 Adjust contents of ladle in accordance with procedures

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
specification	2.2 Monitor continuous casting process in accordance with SOPs 2.3 Apply metallurgical principles to determine and prioritise required actions in accordance with SOPs 2.4 Record adjustments and variations to specifications and/or schedules and report to appropriate personnel 2.5 Refer all events outside of parameters or SOPs to appropriate personnel for remedial action immediately

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Metallurgical principles include:	• post steel making methods employed • types of steel including ingot characteristics, rimmed, capped, killed and semi-killed • factors contributing to successful casting • mode of solidification • continuous casting processes • metallurgical aspects.
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MSATCM508A Monitor secondary steelmaking operations.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>