

Unit ID: 1492

Domain Title: METALLURGICAL PROCESSING - CORE
Control and monitor a metallurgical plant
from a control room

Level: 4

Credits: 15

Purpose

This unit standard is intended for those who carry out metallurgical processing operations. People holding credit for this unit standard are able to: Plan and prepare to operate controls; demonstrate knowledge relating to the controlling and monitoring of a metallurgical plant; start the metallurgical plant; control and monitor a metallurgical plant; and complete duties pertaining to the controlling and monitoring of a metallurgical plant.

Special Notes

1. Entry information:

Prerequisite

- 1449 - *Comply with health, safety and environmental rules and regulations pertaining to processing operations; or demonstrated equivalent knowledge and skills.*

2. Assessment evidence may be collected from a real workplace or a simulated workplace in which processing operations are carried out.

3. Safe working practices include day-to-day observation of safety policies and procedures and compliance with emergency procedures.

4. Specifications refer to any, or all of the following: manufacturer's specifications and recommendations, and workplace specific requirements.

5. Performance of all elements in this unit standard must comply with relevant regulatory, legislative, workplace requirements and/or manufacturers' specifications.

6. Regulations and legislation, including subsequent amendments, relevant to this unit standard may include but are not limited to the following:

- Labour Act, No. 11, 2007
- Mineral Act, No. 33, 1992
- Mine Health and Safety Regulations, 1999
- Regulations relating to the Health and Safety of employees at work, 1997 and all industry specific regulations, legislations, code of practice, or code of conduct.

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and

moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Plan and prepare to operate controls

Performance Criteria

- 1.1 Work instructions, including plans, specifications, quality requirements and operational details are obtained, explained, clarified and applied to the allocated task.
- 1.2 Safety and security requirements, including personal protective clothing and equipment are obtained from the site safety plan, workplace policies and procedures, explained, and applied to the allocated task.
- 1.3 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.4 Work area is inspected and prepared according to workplace procedures.

Element 2: Demonstrate knowledge relating to the controlling and monitoring of a metallurgical plant

Performance Criteria

- 2.1 The importance of the controlling and monitoring process is described in terms of achieving specified production requirements.
- 2.2 Hazards and associated risks are identified through relevant risk assessment procedures.
- 2.3 The process flow and interlock systems of the metallurgical plant are explained in terms of operational requirements.
- 2.4 The communication requirements pertaining to the controlling and monitoring process are described.
- 2.5 The operating procedures of the metallurgical plant are described.
- 2.6 The specified parameters, control methods and the factors affecting the metallurgical process are described.
- 2.7 Corrective actions, in case of sub-standard conditions and problems be encountered, are described.

Element 3: Start the metallurgical plant

Performance Criteria

- 3.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 3.2 The plant is examined and substandard conditions are reported to appropriate personnel according to workplace procedures.
- 3.3 Clearance to start the process equipment is obtained according to workplace procedures.
- 3.4 The process equipment is started according to start-up procedures, workplace practices and requirements.
- 3.5 The process settings are adjusted within specified tolerances.
- 3.6 The start-up process is monitored and sub-standard conditions and problems are dealt with according to workplace procedures.

Element 4: Control and monitor a metallurgical plant

Performance Criteria

- 4.1 Workplace hazards and associated risks are identified, minimised or eliminated according to workplace procedures and legislative requirements.
- 4.2 The feed is started and flow rates are adjusted to maintain quality and quantity requirements.
- 4.3 Control room instruments are monitored and problems encountered are dealt with according to workplace procedures.
- 4.4 Processing conditions are optimised to meet production requirements according to workplace procedures.
- 4.5 Data is interpreted and compared with pre-determined outcomes.
- 4.6 Production output is routed to designated locations according to workplace procedures.
- 4.7 Plant operations are monitored to be consistent with environmental protection requirements.

Element 5: Complete duties pertaining to the controlling and monitoring of a metallurgical plant

Range

Housekeeping may include but is not limited to ensure the work area is ready for next user; remove work materials to designated locations; correctly identify waste and re-usable material; and remove waste and re-usable materials to designated locations.

Performance Criteria

- 5.1 Task-specific tools, personal protective and safety equipment, are cleaned, maintained and stored for further use according to workplace procedures.
- 5.2 Good housekeeping practices are maintained according to workplace procedures.
- 5.3 Reporting and recording requirements are met according to workplace procedures.
- 5.4 Work related documents are completed according to job requirements and workplace procedures.

Registration Data

Subfield:	Metallurgy
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