

Domain

METALLURGICAL PROCESSING - CORE

Title:

Operate small plant and equipment

Level: 2

Credits: 8**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 for operating small plant and equipment; conduct pre-operational checks; use small plant and equipment; carry out operator maintenance; and complete duties pertaining to operating small plant and equipment.

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. This unit standard should be assessed in conjunction with other relevant technical unit standards selected from the metallurgical processing, mineral processing, hydrometallurgy, or pyrometallurgy domain.
4. *'Small plant and equipment'* refers to mobile plant and equipment, such as extraction fans; jack hammers; water pumps; generators; lighting sets; hoists; wet and dry vacuum cleaners; impact tools; sampling units; and sampling preparation units.
5. Safe working practices include day-to-day observation of safety policies and procedures and compliance with emergency procedures.
6. Specifications refer to any, or all of the following: manufacturer's specifications and recommendations, and workplace specific requirements.
7. Performance of all elements in this unit standard must comply with relevant regulatory, legislative, workplace requirements and/or manufacturers' specifications.
8. 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 for operating small plant and equipment

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 requirements, including personal protective clothing and equipment are obtained from the site safety plan, workplace policies and procedures, and applied to the allocated task.
- 1.3 Small plant, equipment, tools, fuel, lubricants, attachments and accessories selected to carry out tasks are checked for consistency with the requirements of the job, their usability and any faults rectified or reported prior to commencement of work.
- 1.4 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.5 Work area is inspected and prepared according to workplace procedures.

Element 2: Conduct pre-operational checks

Performance Criteria

- 2.1 Fuel, oil, hydraulic fluid, and water levels are checked and adjusted according to manufacturer's specifications.
- 2.2 Bolts, nuts, guards and attachment couplings are tightened or secured, and maintained.
- 2.3 Functions of control and gauges are checked and adjusted where necessary to comply with manufacturer's specifications.
- 2.4 Standard start-up and shutdown procedures are conducted according to manufacturer's specifications.

Element 3: Use small plant and equipment

Performance Criteria

- 3.1 Site hazards associated with the use of small plant and equipment are identified and appropriate controls are established in accordance with workplace procedures.
- 3.2 Operating techniques for small plant and equipment are identified and applied according to manufacturer's design specifications.
- 3.3 Small plant and equipment is operated to produce results within design specifications.
- 3.4 Small plant and equipment is safely located when not in immediate use.

Element 4: Carry out operator maintenance

Performance Criteria

- 4.1 Small plant and equipment is shutdown and prepared for maintenance according to manufacturer's specifications and workplace procedures.
- 4.2 Inspection and fault-finding procedures are conducted according to manufacturer's specifications and workplace procedures.
- 4.3 Defective parts are safely and effectively removed and replaced according to manufacturer's specifications and workplace procedures.
- 4.4 Periodic maintenance within scope of responsibility is carried out according to manufacturer's specifications and workplace procedures.

Element 5: Complete duties pertaining to operating small plant and equipment

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 Small plant and equipment, 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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