

	Unit ID: 1133
Domain	HEAVY EQUIPMENT OPERATIONS
Title:	Process materials in a mobile screening plant
Level: 3	Credits: 15

Purpose

This unit standard is intended for those who work in surface mining and quarrying operations. People holding credit for this unit standard are able to: Plan and prepare for work; carry out pre-start checks to mobile screening plant; test plant operation and check settings; screen material; complete shut-down procedures; complete work related documents; clean up work area; and prepare mobile screening plant for transport.

The main focus of this unit standard is the attainment of the required outcomes of learning, not the how, when or where learning occurred. People who have attained credits for unit standard ID 1033, registered under the subfield and domain of Road Construction and Maintenance, should be given the opportunity to apply for recognition of prior learning.

Special Notes

1. Entry information:
 - Prerequisite
 - Unit 1113 - *Comply with health, safety and environmental rules and regulations pertaining to heavy equipment operations*
2. Quality in this unit standard means adherence to work instructions. It is assumed that the work instructions are informed by contract requirements.
3. Expected worksite production target are to be met.
4. Assessment evidence may be collected from a real workplace or a simulated workplace in which surface mining and quarrying operations are carried out.
5. Maintenance may include but is not limited to cleaning, authorised servicing and the monitoring, recording and reporting of faults. It may also include the conduct of authorised minor replacements and the provision of assistance to maintenance and repair activities.
6. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures, and compliance with emergency procedures.
7. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement 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 of 2007
 - Regulations relating to the health and Safety of employees at work, 1997

and 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 work

Range

Personal protective equipment may include but is not limited to overalls; safety boots; gloves; safety glasses; earmuffs; hardhat; and dust protection.

Performance Criteria

- 1.1 Work instructions, 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 Plant, tools, fuel, lubricants, equipment, 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: Carry out pre-start checks to screening plant

Range

Pre-start check procedures may include but are not limited to feeders; lubrication; screening plant; hydraulic pumps, pipes and accessories; conveyors; hoppers and bins; and lockouts.

Performance Criteria

- 2.1 Pre-start checks are carried out in accordance with workplace procedures and manufacturer's specifications.

- 2.2 Visual checks of machinery are conducted to identify mechanical problems according to workplace procedures and manufacturer's specifications.
- 2.3 Emergency stops and fail-safe devices are checked according to workplace procedures and manufacturer's specifications.

Element 3: Test plant operation and check settings

Range

Screening media may include but is not limited to piano wire; wire mesh; and Polyurethane or rubber panels.

Performance Criteria

- 3.1 Screening media are selected and installed as required by the nature and condition of the material to be screened.
- 3.2 Screening plant and equipment are operated and tested according to workplace procedures.
- 3.2 Conveyors, screens and other ancillary equipment are operated and checked in accordance with manufacturer's specifications and plant configuration.
- 3.3 Material is test-screened through plant and product is checked for compliance with specifications.

Element 4: Screen material

Range

Plant and equipment operation include adjustments of feed rate; amperage/load; and screen inclination.

Safe operating procedures may include but are not limited to emergency procedures; hazards; blockages; machinery defects; and lighting.

Performance Criteria

- 4.1 Material is selected from the correct stockpile according to quality plan and production schedule.
- 4.2 Plant and equipment are operated, to ensure effective screening of materials according to manufacturer's specifications and workplace procedures.
- 4.3 Unscreened material is directed into hopper in accordance with site safety procedures.
- 4.4 Feed of unscreened material is maintained according to screening plant operating manual and workplace procedures.
- 4.5 Screened material quality is maintained according to plant specifications.
- 4.6 Screening plant is stopped, cleared of blocked materials, and restarted, where required, in accordance with safety plan and manufacturer's specifications.

- 4.7 Machinery loads and plant settings are maintained according to manufacturer's specifications, workplace procedures, and production schedule.
- 4.8 Procedures for safe operating of screening plant are followed in accordance with manufacturer's requirements and workplace procedures.

Element 5: Complete shutdown procedures

Range

Shutdown procedures may include but are not limited to clear feed hopper and run out materials through plant.

Performance Criteria

- 5.1 Conveyor system is shut down according to plant configuration and shutdown sequence in line with manufacturer's specifications.

Element 6: Complete work related documents

Performance Criteria

- 6.1 Work related documents are completed in accordance with contract and workplace requirements.
- 6.2 Maintenance and service related documents are completed in accordance with manufacturer and workplace requirements.
- 6.3 Documents related to accidents or other incidents are completed in accordance with workplace requirements.

Element 7: Clean up work area

Range

Maintenance tasks may include but are not limited to lubrication; refuelling; belt tensioning and adjustments; belt splicing; skirting rubbers; changing screening media; and idler replacement.

Performance Criteria

- 7.1 Work area is cleared and materials disposed of or recycled in accordance with project environment management plan.
- 7.2 Conveyors and belt picking area, if required, are cleared of material according to workplace procedures.
- 7.2 Plant, tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.
- 7.3 Inspection, faultfinding, and reporting are carried out according to manufacturer's requirements and workplace procedures.

Element 8: Prepare mobile screening plant for transport

Performance Criteria

- 8.1 Plant is disassembled and prepared for transport according to manufacturer's and workplace procedures.
- 8.2 Plant is secured for transporting according to manufacturer's specifications and workplace procedures.

Registration Data

Subfield:	Surface Mining and Quarrying
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