

	Unit ID: 1036
Domain	ROAD CONSTRUCTION AND MAINTENANCE – MACHINE OPERATIONS
Title:	Produce product using a mobile crushing plant
Level: 4	Credits: 25

Purpose

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

Special Notes

1. Entry information:

Prerequisite

- Unit 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work 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, a simulated workplace or an appropriately simulated environment in which road construction and maintenance 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 relevant to this unit standard may include but are not limited to the following:
 - Labour Act, No. 11 of 2007
 - Occupational Health and Safety Regulations No. 18, 1997.
 - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No 53 Road Traffic and Transport Regulations
 - Road Ordinance 1972 and other relevant legislations

and all subsequent amendments.

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

Work instructions, specifications, quality requirements and operational details may include but are not limited to crushing plant daily schedule; size and type of materials to be crushed.

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

Communication methods may include but are not limited to signals and use of two way radios.

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 Communication methods are determined according to workplace procedures and manufacturer's requirements.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.
- 1.6 Work area is inspected and prepared according to workplace procedures.

Element 2: Carry out pre-start checks to mobile crushing plant

Range

Pre-start check procedures may include but are not limited to drive belts; lubrication; safety guards; warning signals; oil and water levels; greasing; water spray system; and crusher clear of materials.

Performance Criteria

- 2.1 Pre-start checks on crushing plant and equipment 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

Performance Criteria

- 3.1 Crushing 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-crushed through plant and product is checked for compliance with specifications.

Element 4: Crush material

Range

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 Uncrushed materials are directed into hopper in accordance with site safety procedures.
- 4.3 Feed of uncrushed materials is maintained according to crushing plant operating manual and workplace procedures.
- 4.4 Crushed material quality is maintained using scalping systems according to plant specifications.
- 4.5 Crushing plant is stopped, cleared of blocked materials, and restarted, where required, in accordance with safety plan and manufacturer's specifications.
- 4.6 Machinery loads and plant settings are maintained according to manufacturer's specifications, workplace procedures, and production schedule.

- 4.7 Procedures for safe operating of crushing plant are followed in accordance with manufacturer's requirements and workplace procedures.

Element 5: Complete shut-down procedures

Range

Shut-down 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 shut-down 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

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, fault finding, and reporting are carried out according to manufacturer's requirements and workplace procedures.

Element 8: Prepare mobile crushing 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:	Road Construction and Maintenance
Date first registered:	
Date this version registered:	
Anticipated review:	
Body responsible for review:	Namibia Training Authority