

	<b>Unit ID: 1031</b>
<b>Domain</b>	<b>ROAD CONSTRUCTION AND MAINTENANCE – MACHINE OPERATIONS</b>
<b>Title:</b>	<b>Carry out road construction and maintenance activities using a tipping semi-trailer</b>
<b>Level: 3</b>	<b>Credits: 15</b>

### 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; demonstrate knowledge of factors that affect the tipping of material; perform maintenance and authorised service operations on the tipping semi-trailer; start and shut down tipping semi-trailer; haul and tip material; complete work related documents; and clean up work area.

Being credited with this unit standard does not enable a person to drive the vehicle on an open, public road. In order to do so, a person must be in possession of a valid and current driving license relevant to this vehicle type.

### 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. Expected worksite production target are to be met.
3. 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.
4. The credit allocated for this unit standard assumes that the candidate has the required drivers licence.
5. *'Tipping semi-trailer'* refers to a tractor-trailer combination wherein the semi-trailer itself contains the hydraulic hoist.
6. 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.
7. Safe working practices include but are not limited to day-to-day observation of safety policies and procedures, and compliance with emergency procedures.
8. Performance of all elements in this unit standard must comply with all relevant legal and workplace requirements, contractual agreement and/or manufacturers' specifications.

9. 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 on [www.nta.com.na](http://www.nta.com.na).

## **Elements and Performance Criteria**

### **Element 1: Plan and prepare for work**

#### **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 and workplace policies and procedures, and applied to the allocated task.
- 1.3 Traffic control requirements are obtained and implemented in line with workplace requirements.
- 1.4 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.
- 1.5 Environmental protection requirements are identified from the project environmental management plan and applied to the allocated task.

### **Element 2: Demonstrate knowledge of factors that affect the tipping of material**

#### **Range**

Factors contributing to tipping semi-trailer rollover may include but are not limited to camber; corners; gradient; slish effect; and static rollover threshold.

#### **Performance Criteria**

- 2.1 Factors contributing to tipping semi-trailer rollover are described and actions for avoidance are explained according to workplace procedures.

**Element 3: Perform maintenance and authorised service operations on the tipping semi-trailer**

**Performance Criteria**

- 3.1 Tipping semi-trailer is maintained and serviced in accordance with the workplace requirements and manufacturer's procedures.

**Element 4: Start and shut down tipping semi-trailer**

**Performance Criteria**

- 4.1 Pre-operational checks are carried out according to appropriate checklist and workplace procedures.
- 4.2 Daily and weekly operator maintenance is performed according to appropriate checklist and workplace procedures.
- 4.3 Start-up and shutdown procedures are followed according to manufacturer's specifications.
- 4.4 Operating hours are recorded, if required, in accordance with workplace requirements.
- 4.5 Tipping semi-trailer maintenance and faults are reported in accordance with workplace requirements.

**Element 5: Haul and tip material**

**Performance Criteria**

- 5.1 Relevant work instructions are obtained and confirmed in line with workplace procedures.
- 5.2 The load is checked as being secured, balanced and within capacity according to the work instruction, manufacturers' specifications and legal requirements.
- 5.3 Material is transported to the designated site.
- 5.4 Site access and tipping zone are identified
- 5.5 Hazards associated with the tipping zone are identified and controls described in accordance with manufacturer's instructions and workplace procedures.
- 5.6 Material is off loaded according to work instructions and manufacturer's specifications.
- 5.7 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements.

- 5.8 Tipping semi-trailer is operated without risk of damage or loss to tipping semi-trailer, property, third party, or injury to people.
- 5.9 Hauling and tipping operations are integrated with other on-site activities.
- 5.10 Where haulage is on public roads, road rules and courtesies are observed and adhered to.

**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 Tipping semi-trailer, tools and equipments are cleaned, checked, maintained, serviced and stored in accordance with manufacturers' recommendations and standard work practices.

**Registration Data**

<b>Subfield:</b>	Road Construction and Maintenance
<b>Date first registered:</b>	
<b>Date this version registered:</b>	
<b>Anticipated review:</b>	
<b>Body responsible for review:</b>	Namibia Training Authority