

Unit ID 1147

Domain

**ROAD CONSTRUCTION AND
MAINTENANCE - SUPERVISION**

Title:

**Monitor the quality of work on a road
construction and maintenance work
site**

Level: 5

Credits: 10

Purpose

This unit standard is intended for General Foremen working on a significant road construction or maintenance site. People credited with this unit standard are able to: review production-related reports prepared by others; initiate testing; interpret test results and measurement information; prepare quality reports for management.

This unit standard builds on the competencies relating to quality assurance and project record keeping covered by other unit standards in this Domain.

Special Notes

1. Entry information

Prerequisite

- Unit 712 - *Comply with health, safety and environmental rules and regulations in road construction and maintenance work operations* or demonstrated equivalent skills and knowledge.

2. The credits for this unit standard have been calculated on the assumption that the competencies specified in the following unit standards have been acquired to industry requirements:

- Unit 1052 *Undertake site administration duties as a road construction and maintenance Foreman*
- Unit 1055 *Undertake routine quality assurance actions on a road construction and maintenance site*

3. This unit standard is to be assessed on the basis of evidence from demonstrated performance on a worksite or worksites. Assessment parameters will depend on company and site specific equipment, procedures, and practices. Practices must reflect industry best practice and comply with legislative requirements. Evidence is required from one worksite.

4. Definitions

- a) *Organisational procedures* means all documented policies, procedures, and methodologies of the candidate's employer at the time of assessment and include but are not limited to those relating to health, safety, environment, quality, administration, and operations. All stipulated requirements, including legal requirements, must be adhered to at all times.
 - b) *Reports* refer to summations and commentaries relating to any or all of: resource utilisation; work outputs; testing and quality; health, safety and environmental compliance; traffic management and accommodation; incidence and accident investigations; visitors to the site; sub-contractor activities; as relevant to the work project.
 - c) *Resources*, as used in this unit standard, refers to materials, machines, manpower and time.
5. Regulations and legislation relevant to this unit standard include but are not limited to the following:
- Labour Act, No. 11 of 2007 as amended
 - Regulations relating to the Health and Safety of employees at work, 1997
 - Road Traffic and Transport Regulations No. 52, 1999 and Government Notice No. 53 on Road Traffic and Transport Regulations
 - Road Ordinance 30 of 1960 and 17 of 1972 and other similar legislation 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: Review production-related reports prepared by others

Performance Criteria

- 1.1 Site records and source documents provided by subordinate foremen are checked off and verified as being processed and completed in accordance with work site requirements and organisational procedures.
- 1.2 Collated documents are kept in order for use during and after the project in accordance with organisational procedures.
- 1.3 Reports and source documents are reviewed for any variations with contract specifications and/or requisitions and any variations and/or items of significance to management are highlighted or documented in accordance with organisational procedures.

Element 2: Initiate testing

Range:

Significant concepts to be described are those relevant to the works project and could include but not be limited to: density; temperature; percentages and ratios; pressure; imperial and metric measures of length, area and volume; speed; stress and strain.

Performance Criteria

- 2.1 Significant concepts are described in terms of relevance to work processes, measurement or testing processes, and units for expressing values.
- 2.2 Tests and test frequency to be undertaken is derived and verified from contract specifications and documented as a testing schedule.
- 2.3 Monitoring and oversight ensures that required testing is carried out as required by the contract specifications.

Element 3: Interpret test results and measurement information

Range:

Tests to be interpreted are those relevant to the project and could include but not be limited to: density tests of sand and other aggregates; bearing ratios; crushing strength; sieve analysis; concrete cube tests; slump tests; moisture content; plasticity index; lime and cement content; flakiness index of coarse aggregates; least dimension of aggregates; binder content; temperature tests; and abrasion tests.

Measurements refers to layer depths, dimensions, volumes, tolerances, etc

Performance Criteria

- 3.1 The availability of all results from scheduled testing and measurements are verified against the test schedule and records of testing having been undertaken and/or test samples being provided.
- 3.2 Information presented in tabular and graph forms is read with accuracy.
- 3.3 Technical words associated with tests and test results are explained with reference to work processes and/or outputs.
- 3.4 Key information relevant to testable parameters and measurements required in contract specifications is identified, compared with contract specifications, and explained in terms of significance for continuation and/or remediation of work.
- 3.5 Any actions required following the receipt and interpretation of test and measurement information is initiated and reported in accordance with contract specifications, site practice and organisational procedures.

Element 4: Prepare quality reports for management

Performance Criteria

- 4.1 Recording and reporting requirements for the work project are verified from contract specifications, management instructions and organisational procedures.
- 4.2 Information provided in reports from subordinate foremen and ancillary services (such as laboratories) is analysed and used to support reported progress in accordance with contract requirements and organisational procedures.
- 4.3 Reported progress reflects actual and cumulative events as required by the contract and in accordance with management instructions.
- 4.4 Preparation, processing and storage of documents and reports complies with contract requirements and organisational procedures.

Registration Data

Subfield:	Road Construction and Maintenance
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