

PART C3: SCOPE OF WORK

Document reference	Title: Provision of overhead crane assessment	No of page
	This cover page	1
C3.1	Employer's Works Information	
C3.2	Contractor's Works	
	Total number of page	s



Signature Approval

Compiled by:

hn sibisi 02/12/24

Hlengiwe Sibisi

Engineering technician

Approved by:

2/12/2024

Tlou Mapotsi

Engineering manager



C3.1 EMPLOYER'S WORKS INFORMATION

Contents

PART C3:	SCOPE OF WORK	4
1 Des	scription of the works	4
1.1	Executive overview	4
1.2	Employers objectives	6
2 Sco	pe of work descrption	6
2.1	Visual inspection	6
2.2	Overhead crane and hoist testing requirements	7
3 Hea	althy and safety requirements	7
3.1	The following are the SANS standard and governing codes	7
3.2	Codes and standards for cranes	8

Interpretation and terminology

The following abbreviations are used in this Works Information:



	т — — — — — — — — — — — — — — — — — — —
Abbreviation	Meaning given to the abbreviation
AIA	Authorised Inspection Authority
BBBEE	Broad Based Black Economic Empowerment
CEMP	Construction Environmental Management Plan
CD	Compact Disc
CDR	Contractor Documentation Register
CDS	Contractor Documentation Schedule
CRL	Contractor Review Label
CSHEO	Contractor's Safety, Health and Environmental Officer
CM	Construction Manager
DTI	Department of Trade and Industry
DGN	
DWG	Drawings
EDMS	
EO	Environmental Officer
HAW	Hazard Assessment Workshop
HAZOP	Hazard and Operability Study
HSSP	Health and Safety Surveillance Plan
INC	Independent Nominated Consultant
IP	Industrial Participation
IR	Industrial Relations
IPP	Industrial Participation Policy
IPO	Industrial Participation Obligation
IPS	Industrial Participation Secretariat
IRCC	Industrial Relations Co-ordinating Committee
JSA	Job Safety Analysis
CIRP	Contractor's Industrial Relations Practitioner
Native	Original electronic file format of documentation
PES	Project Environmental Specifications
PHA	Preliminary Hazard Assessment
PIRM	Project Industrial Relations Manager
PIRPMP	Project Industrial Relations Policy and Management Plan
PLA	Project Labour Agreements
PSIRM	Project Site Industrial Relations Manager
PSPM	Project Safety Program Manager
PSSM	Project Site Safety Manager
ProgEM	Programme Environmental Manager
ProjEM	Project Environmental Manager
QA	Quality Assurance
R&D	Research and Development
SANS	South African National Standards
SASRIA	South African Special Risks Insurance Association
SES	Standard Environmental Specification
SHE	Safety, Health and Environment
SHEC	Safety, Health and Environment Co-ordinator
SIP	Site Induction Programme

TRANSNET PORT TERMINALS
CONTRACT NUMBER:
DESCRIPTION OF THE WORKS: PROVISION FOR OVERHEAD CRANE ASSESSMENT FOR THE DURATION OF ONE DAY



SMP	Safety Management Plan
SSRC	Site Safety Review Committee



1.DESCRIPTION OF THE WORKS

1.1 Executive overview

Transnet port terminals is a division of Transnet SOC limited whose core business is to provide cargo handling to a wide spectrum of customers, including shipping lines, freight forwarders and cargo owners .Operations are divided into four major business segments, namely bulk, break bulk and automotive ,All divisions operating under one umbrella ,DBT and MPT.DBT compromise conveyor belt, ship loader and unloaders, takers and conveyor belt systems infrastructure for import and export and stacking of bulk commodities like coal ,coal chloride, magnetite and sulphur to list few. Handle mixture of commodities with the use of road truck transport, skips, forklift, mobile ship loader crane, ship unloader mobile cranes, straddles and more.

1.2 EMPLOYERS OBJECTIVES

Service provider is required to perform inspection and assessment for 7 overhead cranes at Transnet port terminals the port of Richards Bay for the period of 1 day.

2 SCOPE OF WORK DESCRIPTION

Inspection and assessment should be carried out in the following equipment:

Location	Crane size
MHA workshop	Verlinde 15 ton
MHA workshop	Verlinde 5 ton
MHA workshop	Verlinde 3.2 ton
Shop 5 boiler shop	Kone crane 8 ton
Import electrical workshop	Verlinde 5 ton
Import mechanical workshop	Verlinde 20 ton
Major transfer	Martin 3 ton

2.1 Inspection of electrical equipment and control system.

- 2.1.1 Inspection of material and strength requirements for the part of cranes and wire ropes
- 2.1.2 Inspection of signage, including warning sign and control markings
- 2.1.3 Inspection of mechanical equipment
- 2.1.4 Inspect all components of overhead cranes for defect
- 2.1.5 Check any sign of overheating on electric motors



- 2.1.6 Observe the operation of relays, contactors and timers
- 2.1.7 Check all electronic components and current rating
- 2.1.8 Test electric motors
- 2.1.9 Inspect all circuit and wiring
- 2.1.10 Visual inspection for crane structure to be done
- 2.1.11 Check all protection circuit
- 2.1.12 Check Functioning of Sensors
- 2.1.13 Inspect condition of drives
- 2.1.14 Inspect Festoon cable during movement of crane
- 2.1.15 Check lubrication and listen for noise in mechanical equipment
- 2.1.16 Service Provider must inspect ropes, hooks and Chains

2.2 Overhead cranes and hoist testing requirements

- 2.2.1 Contractor must conduct load performance test
- 2.2.2 Test the main hoist
- 2.2.3 The contractor shall conduct visual inspection by a crane inspector of the crane's installation.
- 2.2.4 Load test manufacturing standards to 110% of the maximum safe working load if the measuring standard not available hooks

3 Assessment report and correction of defect

- 3.1.1 Inspection test result and findings
- 3.1.2 Assessment report to be provided
- 3.1.3 Assessment of defect and damaged requiring repair for each crane
- 3.1.4 Recommended maintenance necessary to ensure safe operation
- 3.1.5 Identify components that requires repairs
- 3.1.6 Service provider to provide detailed technical specification of each overhead cranes
- 3.1.7 Recommend based on current condition of spares parts

4 HEALTH AND SAFETY REQUIREMENTS

4.1 The Following are the SANS standard and governing codes



- 4.1.1 All equipment and installation whether detailed in this document shall comply with
- 4.1.2 Requirements of the occupational health and safety Act 85 of 1993 as amended by applicable local authorities
- 4.1.3 All times during the execution of the task, the contractor will be responsible for the safety of all people on site and equipment
- 4.1.4 All electrical work must be in accordance with SANS 10142
- 4.1.5 Occupational health and safety of overhead cranes 0HSA ACT 1910.179
- 4.1.6 Identify components that requires repairs

4.2 CODES AND STANDARD FOR CRANES

South African national standard	Description
SANS 4309	Wire ropes, maintenance, installation
	And examination
SANS 23814	Competency requirements for cranes
	inspectors
SANS 14518	Requirements for test loads
SANS 12482-1	Condition monitoring
SANS 12478	Cranes monitoring and manuals
SANS 10973	Spares part manual
SANS 10375	Inspection testing and examination of overhead cranes
SANS 10307	Cranes, lifting and suspended equipment
SANS 9373	Cranes and related equipment
	Accuracy requirements for measuring parameters during testing
SANS 7752	Lifting appliances, control, layout and characteristics
SANS 687	Inspection and testing of non-fixed load lifting attachments
SANS 522	The inspection, testing and examination of tower cranes
SANS 61-1	Limiting and indicating devices
SANS 19	The inspection testing and examination of mobile cranes

TRANSNET PORT TERMINALS
CONTRACT NUMBER:
DESCRIPTION OF THE WORKS: PROVISION FOR OVERHEAD CRANE ASSESSMENT FOR THE DURATION OF ONE DAY



SANS 9001	Quality management system
SANS 14001	Environmental management system
SANS 18001	Occupational health and safety management system