




	Scope of Work	Engineering
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1. INTRODUCTION

There are several type and size of power cables and cable racks that are installed and used at Duvha Power Station. These cables and racks need to be replaced whenever they are faulty and damaged. A Contractor is required to is required to conduct a replacement of the faulty or damaged cables and racks as and when required.

2. SUPPORTING CLAUSES

2.1 SCOPE

This document covers the test, determine, supply, remove, install, test and commission of the power cable and cable racks as and when required.

2.1.1 Purpose

The aim of the document is to define scope of work for testing and replacement requirements of the faulty or damaged cable.

2.1.2 Applicability

This document shall apply to Duvha Power Station.

Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs:

2.1.3 Normative

- [1] ISO 9001 Quality Management Systems.
- [2] QM 58 Eskom Quality Requirement

2.1.4 Informative

- [3] 240-56227443 Generation Requirements for Control and Power Cables for Power Stations Standard
- [4] 240-56356396: Earthing and Lightning Protection Standard
- [5] 03A-DUV0004 Outage Philosophy - Duvha Power Station Rev 9

2.1.5 Disclosure Classification

Controlled disclosure: controlled disclosure to external parties (either enforced by law, or discretionary).

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2.1 ABBREVIATIONS

Abbreviation	Description
A	Amperage
AKZ	Anlagenkennzeichnungs – system, specification for labelling Power Station
AC	Alternative Current
DC	Direct Current
EMD	Electrical Maintenance Department
SOW	Scope of Work
V	Voltage
QA	Quality Assurance
QC	Quality Control
QCP	Quality Control Plan

2.2 DEFINITIONS

Employer	Duvha Power Station – Electrical and Maintenance Department.
Contractor	A company that is appointed to implement this Scope of Work.

2.3 ROLES AND RESPONSIBILITIES

It is the role of the Electrical Engineering to develop this scope of work and to clarify during its implementation.

It is the responsibility of EMD to manage and supervise implementation and execution of this scope of work.

It is the responsibility of Contractor to implement and execute this scope of work in line with its requirements and applicable standards.

3. SCOPE OF WORK

3.1 GENERAL

The Contractor provides all tool(s), equipment, material(s) and spare(s) required to execute and implement the tasks and responsibilities detailed in this document.

The Contractor provides any labour, personnel, travel and accommodation or that might be required to execute and implement the tasks and responsibilities detailed in this document.

The Contractor submits data sheet for any cable, rack or apparatus to the Employer for acceptance before installation. It is the Contractor's responsibility to confirm that cable, rack or apparatus provided for the installation is accepted (signed) by the Employer prior to construction or installation.

The Contractor remains liable for all works conducted as per the requirements of this document.

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The Contractor submits a fully detailed Method Statement and Quality Control Plan (QCP) to the Employer in two week's time prior commencing of work, for review and acceptance.

Any discrepancy or ambiguity between the Employer's specification or scope of works is immediately brought to the attention of the Employer by the Contractor for clarification.

3.2 POWER CABLE

The Contractor's scope of work includes the following 1, 2, 3,4 and 7 core(s) PVC, PILC and XLPE cables:

- 1.5mm²
- 2.5mm²
- 4mm²
- 6mm²
- 10mm²
- 16mm²
- 25mm²
- 35mm²
- 50mm²
- 70mm²
- 95mm²
- 120mm²
- 150mm²
- 185mm²
- 240mm²
- 300mm²
- 500mm²
- 630mm²

The Contractor identifies, inspects, tests and provides a detail report to the Employer for a suspected faulty cable.

The Employer gives the Contractor a direction or instruction based on the provided report.

The Contractor provides, installs, tests and terminates power cables when the Employer instructed them to do so in writing.

The Contractor implements the provision, installation, joint, and termination of cable, rack or apparatus as per the Eskom Standard 240-56227443.

3.3 CONTROL AND INSTRUMENTATION CABLE

The Contractor's scope of work includes the following cables:

- UVG02 Cable
- UVG04 Cable
- UVG08 Cable

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- UVG12
- UVG16
- UVG20
- UVG24
- UVG40
- Thermocouple Extension/ Compensating
- CAT6 cables and Ethernet
- OLFLEX
- JE-LIYCY Data Transmission
- NYY4X
- Multimode 8 Core Fibre Optic
- Multimode 16 Core Fibre Optic

The Contractor identifies, inspects, tests and provides a detail report to the Employer for a suspected faulty cable.

The Employer gives the Contractor a direction or instruction based on the provided report.

The Contractor provides, installs, tests and terminates power cables when the Employer instructed them to do so in writing.

The Contractor implements the provision, installation, joint, and termination of cable, rack or apparatus as per the Eskom Standard 240-56227443.

3.4 CABLE JOINT

The Contractor submits data sheet for any cable joint to the Employer for acceptance before installation.

The Contractor provides installs and joints a suitable joint for a cable when the Employer instructed them to do so in writing.

3.5 DOCUMENTATION

The Contractor submits a fully detailed Cabling Method Statement to the Employer for review and acceptance.

The Contractor submits a fully detailed Cabling QCP template to the Employer for review and acceptance.

The Contractor provides a detailed Cable Inspection Report template to the Employer for review and acceptance.

The Contractor provides a detailed Cable Testing Report template to the Employer for review and acceptance.

The Contractor provides a detailed Cable Pull Slip template to the Employer for review and acceptance.

The Contractor uses and completes the reviewed and accepted Method Statement, QCP, Pull Slip, Inspection Report and Testing Report template during the implementation of the task.

The Contractor submits fully completed and signed QCP, Pull Slip, Inspection Report and Testing Report after the implementation of the task to the Employer for review and acceptance.

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4. AUTHORISATION

This scope of works has been seen and accepted by:

Name & Surname	Designation
Maila Mamoleka	Engineering Manager

5. ACKNOWLEDGEMENTS

This scope of works has been seen and accepted by:

Name & Surname	Designation
Andile Nqayane	Electrical Engineering Manager
Thabang Dumisani	Electrical Maintenance Manager
Vish Padayachee	Electrical Maintenance Senior Supervisor
Brian Makam	Electrical Maintenance Senior Technician

6. REVISIONS

Date	Rev.	Compiler	Remarks
November 2024	0	Sakhy Mnguni	Initial Draft

7. TEAM

The following people were involved in the development of this scope of work:

- Sakhy Mnguni

8. ACKNOWLEDGEMENTS

- Electrical Maintenance Department

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