

Scope Of Work

Hendrina Power Station

Title Switchgear rooms roof rubberizing

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**NGHE0594** 

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## 1. INTRODUCTION

Hendrina Power Station started operating In the early 1970's as one of coal fired power stations in South Africa, Mpumalanga Province Its original design was to run with 10 units but due to the age of the station, t was decided that 4 units be kept on cold reserve and 6 units be on operation. Each unt has switchgear room from unit 1 to 10. The switchgear rooms have been observed to have roof leaks which put switchgear in danger of damage. The roofs are constructed in concrete on a zero-slope level.

## 2. SUPPORTING CLAUSES

#### 2.1 SCOPE.

This document describes the hgh-level scope of work for the switchgear rooms roof rubberizing

## 2.1.1 Purpose

The purpose of this document is to provide the solution of the leaking roofs at units' switchgear rooms.

## 2.1.2 Applicability

This document shall apply to Eskom Hendrina Power Station Aualary Engineering.

#### 2.2 NORMATIVE/INFORMATIVE REFERENCES

## 2.2.1 Normative

[1] ISO 9001 Quality Management Systems

## 2.2.2 Informative

[2] Occupational Health and Safety Act (OHSA) Act 85 of 1993

#### 2.3 DEFINITIONS

Definition	Description
	<del></del>

## 2.3.1 Disclosure Classification

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

## 2.4 ABBREVIATIONS

Abbreviation	Description		
OHSA	Occupational Health & Safety Act		
ISO	International Organization for Standardization	And the second second	

## 2.5 ROLES AND RESPONSIBILITIES

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## 2.6 PROCESS FOR MONITORING

Not applicable

## 2.7 RELATED/SUPPORTING DOCUMENTS

Not applicable

## 3. SYSTEM REQUIREMENTS

#### 3.1 SWITCHGEAR ROOMS REQUIREMENTS

The switchgear rooms are in every unit in the boiler plant. Out of six units that are operable in Hendrina Power Stations, two of them were rubberzed under maintenance budget. Switchgear rooms for unit 2, 6, 7 and 10 including north and south side substations will be covered under this scope

## 3.1.1 The high-level project scope is as follows:

· The scope of work includes but not limited to the following

Units to be covered are,

Unit 2 = 172 m?, Unit 6 = 263  $\mathbf{M}$ , Unit 7 = 168 m?, Unit 10 = 184 m?, North sub-station = 320  $\mathbf{m}$ , South sub-station = 240  $\mathbf{M}$ 

Total area to be covered is 1347 m?

Ste establishment

Remove dust and mud on the roof for waterproofing preparation

Dismantle obstacles (platforms, handrails, and cable racks)

Clean and seal the identified cracks

Screed on slab for roof falls

Prime surface with deep penetrating primer water based

Apply a component, water-based hybrid polyurethane specially developed to produce a thick, seamless, fully adhered, durable, elastic waterproof coating

Reassemble obstacles (platform, handratls, and cable rack)

Ste De-establishment

## 4. STANDARD SPECIFICATIONS

The latest edition, including all amendments up to date of tender of the following specifications, publications and codes of practice shall be read in conjunction with this specification and shall be deemed to form part thereof

Specification of Materials and Methods

SANS 1200 GA -Concrete (small works)

SANS 1200 GB -Concrete (ordinary buildings)

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7. DEVELOPMI	ENT TEAM		

The following people were involved in the development of this document

# 8. ACKNOWLEDGEMENTS

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APPENDIX A: ADDITIONAL DOCUMENTATION