

	Scope Of Work	Technology
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1. INTRODUCTION

Hendrina Power Station raw water usage is high and does not comply with the set targets. Majority of the water is stored in the dams that are constructed in the station and is being pumped back to the system. There is still water that can be pumped from the seven-year dam back to the system via the north cooling towers, but this is currently not possible due to the quality of the water in the seven-year dam. The water in the dam will sometimes contain oil and the oil must be removed from the water before pumping to the cooling towers can happen. This is currently not possible since there is no oil skimming system installed in the seven-year dam to remove oil from the water. This scope of work is for installing an oil skimming system in the seven-year dam to ensure that oil free water can be pumped back to the system via the north side cooling towers.

2. SUPPORTING CLAUSES

2.1 SCOPE

Installation of an oil skimming system

The oil skimming system is made up of the following components:

TDS118 Drum Skimmer

Grooved Drum Skimmer with 1" Mounted Diaphragm Pump and pneumatic drives.

2 x 18" Grooved Recovery Drums

Anodized marine Grade aluminium frame

1" pneumatic pump

Side and End Floats

Air Line

Hose Kit

Oiler/Filter Kit with control valves, stand mounted

Spares Kit for pneumatic pump

10 000Lt Oil Collection Tank including specialized internal piping, stainless steel flanges and fittings

Field Piping

70CFM @ 50-100psi Air Compressor

Permafence Boom

Permafence Boom – 35m section

Metallic Block Ballasts

Universal Slide Zinc Anode Connector

5mm PVC Polyester belting treated with algicide

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Tidal Compensator

Freight

Freight Costs

Freight and import duties for the imported TDS Drum Skimmer and Permafence Boom

Delivery, Installation and Commissioning

Installation, Commissioning, and IOM Manuals

Civil Scope of Work

Site clearance

GeoRevet S33 (S310/SF102) (Bags wall preventing water from entering to construction)

Excavation

Compaction

Blinding layer 50mm thickness (30 MPa)

Column Concrete (30 MPa)

Reinforcement

I-Section Stainless Steel Railing (100X55)

2.1.1 Purpose

The purpose of this document is to outline the scope of work that should be done/followed to have the oil skimming system successfully installed at the seven-year dam in Hendrina Power Station.

2.1.2 Applicability

The document applies only in Hendrina Power Station – Engineering.

2.2 NORMATIVE/INFORMATIVE REFERENCES

2.2.1 Normative

[1] ISO 9001 Quality Management Systems.

2.2.2 Informative

[2] Not applicable

2.3 DEFINITIONS

Definition	Description

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2.3.1 Disclosure Classification

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

2.4 ABBREVIATIONS

Abbreviation	Description
SRD	Stakeholder Requirements Definition

2.5 ROLES AND RESPONSIBILITIES

Auxiliary Engineering – Responsible for compiling the scope of work for the execution of the project.

Projects – Responsible for the implementation and management of the project through out the execution phase until the project is handed back to Engineering.

Procurement Department – Sourcing the suitable and qualifying service provider to execute the scope.

2.6 PROCESS FOR MONITORING

Weekly progress meetings will be held to discuss the implementation of the project.

2.7 RELATED/SUPPORTING DOCUMENTS

Not applicable

3. ENGINEERING CHANGE ANALYSIS/INVESTIGATION/ASSESSMENT

3.1 ROOT CAUSE ANALYSIS/INVESTIGATION

Not applicable

3.2 IMPACT ASSESSMENT

IMPACT ASESSMENT CHECKSHEET

Not applicable

3.2.1 IMPACT DESCRIPTIONS AND REQUIRED ACTIONS

Not applicable

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3.2.1.1 Technical Impact

New installation.

3.2.1.2 Financial

Capital expenditure.

3.2.1.3 Safety

- Additional plant or equipment required to comply with Occupational Health and Safety Act
- (OHSA) Act 85 of 1993

3.2.1.4 Environmental

Project to be executed according to Hendrina Power Station Environmental Policy & Procedures which are available on request.

3.2.1.5 Operating

Not applicable

3.2.1.6 Lessons learnt

New installation

3.2.1.7 Timing

- The project will be in the current financial year 2023/2024

3.2.1.8 Other

Not Applicable

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4. AUTHORISATION

This document has been seen and accepted by:

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5. REVISIONS

Date	Rev.	Compiler	Remarks
June 2023	0	SB Ndlovu	Initial compilation

6. DEVELOPMENT TEAM

The following people were involved in the development of this document:

SB Ndlovu

7. ACKNOWLEDGEMENTS

None

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APPENDIX A: ADDITIONAL DOCUMENTATION

[Add Appendix detail here or remove if not required](#)

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