

 Eskom	Technical Specification	Technology
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Title: **Kusile Power Station FGD
Drainage System Pump
Supply SOW**

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Area of Applicability: **Engineering**

Documentation Type: **Report**

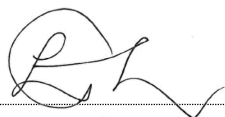
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Date: 27/06/2022

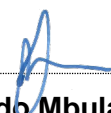
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**Functional
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Date: 25/06/2022

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1. Introduction

This document serves as the SOW for the supply of the FGD drainage system pumps.

2. Supporting Clauses

2.1 Scope

2.1.1 Purpose

2.1.2 Applicability

This document shall be applicable to the FGD drainage system pump.

2.1.3 Effective date

Effective from date of signature

2.2 Normative/Informative References

2.2.1 Normative

- [1] ISO 9001 Quality Management Systems
- [2] I00009-03878241160100-PRMAN-0001-001-A-WFGD Operation Manual _Section 1 – 3
- [3] 240-82869282 Kusile Power Station - Maintenance Execution Strategy for the FGD Unitised Plant Rev.4
- [4] 366-21641 GENERAL LAYOUT PLAN VIEW AND SECTIONS
- [5] I00009-01739244701000-MEDES-2121-B-Abs_Recycle_Pumps_O&M_Manual
- [6] I00009-01739244701000-MEDES-2122-B-Abs_Recycle_Pumps_Maintenance_activities_list

2.2.2 Quality Requirements

The following quality requirements as detailed in the table below must be met:

Process Quality Process/Procedure (PQP/QCP) Work on the FGD shall be carried out in accordance with the relevant approved PQP. The PQP shall be compiled by the contractor based on this scope of work and submitted to Kusile Engineering at least 2 months before the outage for approval. The QCP shall include the work that will be performed both outside the Power Station as well as on site	
Hold and witness points ➤ H&W points that form part of the QCP and have been	

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approved prior to the start date, shall not be by-passed under any circumstances without the written concession of an authorised member of the Engineering Department. It is the Contractors responsibility to inform the Plant Engineer or his representative at the daily progress meetings when an activity will be ready for QC.	
Check Sheets Inspections to be carried out in accordance with check sheets as attached in master quality plan (QCP). All disassembly and assembly values to be recorded in relevant check sheets. No incomplete check sheets will be accepted unless the prior exemption in terms of the technical notification is obtained from Engineering. NCR will be issued for incomplete check sheets. Repair or replace all damaged/worn components out of specification or obtain a concession from engineering staff. All abnormalities to be recorded and reported with technical notifications.	OEM requirements specifications to be used on specifications unless approval to be obtained from Engineering
Quality technicians QC Technicians will be delegated by Plant Engineers to ensure quality standards and quality assurance is exercised during the repairs, replacement or refurbishment.	
Experience of staff All Engineers, technicians, supervisors and quality assurance related staff should have adequate experience to work on specified activities. All artisans should have adequate experience on specified activities and it is the responsibility of the contractor to provide assurance to Eskom that the artisan has the required experience to perform work at Kusile.	Short CV's of all supervisors, quality technicians, and artisans stating qualifications and relevant experience must be provided at least two weeks before commencement of outage.

2.2.3 Informative

Not Applicable

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2.3 Abbreviations

Abbreviation	Explanation
BOP	Balance of Plant
FGD	Flue Gas Desulphurisation
QCP	Quality Control Plan
SOW	Scope of Work

2.4 Roles and Responsibilities

Department	Responsibility
Engineering	Draw up the SOW and submit to Maintenance
Material Management	Issue the SOW to the contractor(s)
Contractor(s)	Execute the SOW to the required standard

3. Drainage Pump supply Scope of Work

The contractor to supply FGD drainage system pumps as per the area and quantities below.

Eskom Material Number	Description
FGD Sump pump	709264

Area	Quantity
Reagent Preparation	2
Reagent Distribution	2
Dewatering building	2
Absorber 1	2
Absorber 2	2
Absorber 3	2
Absorber 4	2
Spares	6

The drainage pump should have the following critical characteristics

	Specification
Discharge Connection	4"(100mm)
Rate Power	22 kW
Maximum Power Consumption	25kW

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Rated Current at 400V	41 Amps
Solid Passage with agitation	40mm
Temperature Range	Within 5°C to 80°C
pH range	Within 5 to 8
Protection Classification	IP 68

4. Acceptance

This document has been seen and accepted by:

Name	Designation
Siboniso Dladla	FGD BOP Maintenance Management
Lungelo Mngoma	FGD Maintenance
Thando Mbulawa	Auxiliary Engineering manager
Nhlanhla Rikhotso	Auxiliary Senior Engineer
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Dorothy Mbonane	FGD Redundancy Recovery Project Manager
Amader Mngomezulu	Material management

5. Revisions

Date	Rev.	Compiler	Remarks
July 2020	0	E Lelaka	First Issue

6. Development Team

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

- Nhlanhla Rikhotso
- Elias Lelaka
- Thabang Lejakane
- Keoagile Kgaladi

7. Acknowledgements

Not Applicable

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