

	SCOPE OF WORK	Grootvlei Power Station
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Supply and Delivery of Water and coal laboratory chemicals at Grootvlei Power Station for a period of 60 months on an as and when required basis.

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CONTENTS	Page
1. INTRODUCTION.....	3
2. SUPPORTING CLAUSES	3
2.1 SCOPE OF WORK.....	3
2.2 Purpose.....	3
2.3 Applicability	3
3. Normative/Informative References.....	3
3.1 Normative.....	3
3.2 Informative	3
4. Definitions.....	3
4.1 Classification	3
4.2 Abbreviations	4
5. Roles and Responsibilities.....	4
6. Process for Monitoring.....	4
7. Related/Supporting Documents	4
8. Document Content.....	4
8.1 Requirements.....	4
8.2 Adherence to Eskom generic policies.....	4
8.3 Quality.....	4
9. Scope of work.....	5
10. AUTHORISATION	10
11. REVISIONS.....	10
12. DEVELOPMENT TEAM.....	10
13. ACKNOWLEDGEMENTS.....	10

CONTROLLED DISCLOSURE

1. INTRODUCTION

Grootvlei Power Station consists of 3 wet cooled units which produce 200MW each at full load, during the process of electricity generation, the station uses chemicals for laboratory activities. These chemicals are in different sizes and qualities. There is a need of a contract for these chemicals to avoid shortage and risking not performing critical tests at station.

2. SUPPORTING CLAUSES

2.1 SCOPE OF WORK

2.2 Purpose

The purpose of this document is to outline the requirements and specifications of the chemicals needed for operation of Grootvlei Power Station laboratories.

2.3 Applicability

This document is applicable to all Grootvlei Power Station Chemistry personnel and all relevant contractor(s).

3. Normative/Informative References

Parties using this document shall apply the most recent edition of the documents listed.

3.1 Normative

None

3.2 Informative

None

4. Definitions

Definition	Description

4.1 Classification

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

CONTROLLED DISCLOSURE

4.2 Abbreviations

Abbreviations Abbreviation	Description
PS	Power Station
SANS	South African National Standard
SDS	Safety Data Sheet
COA	Certificate of Analysis
CRM	Certified Reference Material
NIST	National Institution of Standards and Technology

5. Roles and Responsibilities

It is the responsibility of Chemical Services supervisor to ensure that the chemicals supplied are of the correct specification and quality.

6. Process for Monitoring

Provided Certificate of Analysis and Safety Data Sheet

7. Related/Supporting Documents

None

8. Document Content

8.1 Requirements

8.2 Adherence to Eskom generic policies

All Contractor employees shall comply with Eskom's policies and site regulations, including but not limited to, use of cell phones in restricted areas, adherence to Eskom's Life Saving rules, no smoking policy, zero tolerance on alcohol usage, etc. These requirements will be detailed during the induction training process.

The contractor shall comply with Eskom policies and regulation, including confidentiality agreement.

The contractor shall comply with NEC contract signed.

8.3 Quality

The Contractor provides a complete Quality Assurance plan in accordance with the requirements of ISO 9001 2008 to the Employer for approval. This plan must ensure an integrated quality service as part of the contract. Execution of all quality related activities, including inspection and test plans compilation and execution, stores material quality inspections and all quality-related record keeping is part of the Contractor's scope of work

CONTROLLED DISCLOSURE

9. Scope of work

The contractor is required to supply and deliver chemicals at Grootvlei PS

The contractor is required to supply the following chemicals:

Water and Coal Laboratory chemicals

Material Number	Description	Unit of Measure	Quantity
0157213	CHEMICAL: TYPE: SODIUM HYDROXIDE (NAOH); FORM: PELLETS; CONTAINER CAPACITY: 25 KG; CONTAINER: BUCKET PLASTIC; CAT NO: 78272 REP 90; AR PEARLS 99 TO 100PCT; PACKED IN A TRANSPARENT PLASTIC BAG INSIDE THE 25 KILOGRAM PLASTIC BUCKET WITH LID; MATERIAL SAFETY DATA SHEETS WITH ENVIRONMENTAL INFORMATION IN THE 16 POINT FORMAT TO BE PROVIDED WITH EVERY DELIVERY AS REQUIRED BY THE OCCUPATIONAL HEALTH AND SAFETY ACT; FULL CERIFICATE OF ANALYSES WITH EVERY DELIVERY	KG	8 000
0694415	REAGENT: TYPE: SALT; TRADE NAME: FLUORESCEIN SODIM SALT; PHYSICAL FORM: SALT; COLOR: RED; CONTAINER: PLASTIC; CONTAINER CAPACITY: 500 G; NAME: FLUORECEIN SODIUM SALT; GRADE: AR; FOR TRACEABILITY	G	400 000
0688741	CHEMICAL: TYPE: DIISOPROPYLAMINE; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: BOTTLE AMBER GLASS; TRADE NAME: DIISOPROPYLAMINE; COMPOSITION: 99 PCT PURITY; COLOR: CLEAR; CAS REGISTRY NUMBER: 108-18-9; EINECS NUMBER: 12724/2008; MSDS NUMBER: 1907-2006; GRADE: ANALYTICAL SYNTHESIS; SPECIFICATION: ISO 9001-2008; FOR SYNTHESIS, MELTING POINT: -96 DEGREE CELSIUS, BOILING POINT: 93 DEGREE CELSIUS, FLASH POINT: -17 DEGREE CELSIUS, HIGHLY FLAMABLE IRRITANT, DENSITY: 0.722 AT 22 DEGREE CELSIUS, VAPOUR DENSITY: 3.5, ASSAY (GC) > 99PCT, WATER: <0.3PCT, MATERIAL SAFETY DATA SHEETS WITH ENVIRONMENTAL INFORMATION IN THE 16 POINT FORMAT TO BE PROVIDED WITH EVERY DELIVERY AS REQUIRED BY THE OCCUPATIONAL HEALTH AND SAFETY ACT	L	5000
0575644	CHEMICAL: TYPE: 1AMINO-2 NAPH-4 SULF ACID; FORM: SOLID; CONTAINER CAPACITY: 100 G; CONTAINER: BOTTLE PLASTIC; COMPOSITION: C10 H9 NO4 S; GRADE: AR; MANUF P/N: 100099; 1AMINO-2 NAPHTHOL-4 SULFONIC ACID	G	1000
0575645	CHEMICAL: TYPE: PH4 BUFFER; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: BOTTLE PLASTIC; GRADE: AR; MANUF P/N: 109884	L	1000

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0575646	CHEMICAL: TYPE: PH7 BUFFER; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: BOTTLE PLASTIC; GRADE: AR; MANUF P/N: 109887	L	1000
0727269	BUFFER SOLUTION: TYPE: LIQUID; CONTAINER: 500 ML; CONCENTRATION: 9 PH; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	L	1500
0575647	CHEMICAL: TYPE: PH 10 BUFFER; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: BOTTLE PLASTIC; GRADE: AR	L	1000
0727136	CHEMICAL: TYPE: ACETONE AR; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: PLASTIC	L	1000
0575677	CHEMICAL: TYPE: NESSLER REAGENT; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: BOTTLE PLASTIC	ml	12 000
0729850	CHEMICAL: TYPE: CHLORIDE STANDARD AMPOULE; FORM: LIQUID; CONTAINER CAPACITY: 100 ML; CONTAINER: PLASTIC; TRADE NAME: CHLORIDE STANDARD SOLUTION 1000 PPM AMPOULE; COMPOSITION: AQUEOUS SOLUTION; COLOR: COLORLESS; MSDS NUMBER: 109924; GRADE: AR; SPECIFICATION: 1000 MG/L	ml	3000
0761332	CHEMICAL: TYPE: SULPHATE STANDARD; FORM: LIQUID FORM; CONTAINER CAPACITY: 500 ML; CONTAINER: PLASTIC; TRADE NAME: SULPHATE STANDARD; COMPOSITION: SULPHATE IN WATER; COLOR: COLORLESS; CAS REGISTRY NUMBER: N/A; EINECS NUMBER: N/A; MSDS NUMBER: N/A; GRADE: AR; SPECIFICATION: TRACEABLE TO NIST, 99.99% PURITY	ml	3000
0706871	CHEMICAL: TYPE: ACETYLACETONE; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: GLASS; TRADE NAME: ACETYLACETONE FOR ANALYSIS EMSURE; COMPOSITION: CH ₃ COCH ₂ COCH ₃ C ₃ H ₃ O ₂ (HILL); COLOR: BROWN; CAS REGISTRY NUMBER: 123-54-6; EINECS NUMBER: 204-634-0; MSDS NUMBER: 109600; GRADE: AR; SPECIFICATION: <=100%; PURITY >99%; LASTEST 16 POINTS SAFETY DATA SHEET, CERTIFICATE OF ANALYSIS TO BE SUPPLIED WITH EVERY DELIVERY.	ml	7500
0687022	CHEMICAL: TYPE: TRIS(HYDROXYMETHYL)AMINOMETHANE; FORM: POWDER; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC; TRADE NAME: TRIS BASE	G	12 500
0581542	CHEMICAL: TYPE: FERROUS AMMONIUM SULPHATE; FORM: SOLID; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC	G	50 000

CONTROLLED DISCLOSURE

0581540	CHEMICAL: TYPE: REAGENT 1A; FORM: SOLID; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC; COPRE SILICA/PHOSPHATE AMMONIUM HEPTAMOLYBDATE TETRAHYDRATE	G	80 000
0581541	CHEMICAL: TYPE: OXALIC ACID DEHYDRATE; FORM: SOLID; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC; COMPOSITION: C2H2O.2H2O	G	80 000
0757936	CHEMICAL: TYPE: POTASSIUM METABISULPHITE; FORM: SOLID; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC; COLOR: WHITE; GRADE: AR; REQUIRED WITH EVERY DELIVERY AND MUST INCLUDE MANUFACTURING DATE, C.O.A,	G	30 000

0727122	CHEMICAL: TYPE: DPD1-FREE CHLORINE; FORM: SOLID; CONTAINER CAPACITY: 100 TABLETS PER BOX; CONTAINER: BOX; TRADE NAME: CHLORINE TABLETS; COLOR: WHITE	G	500
0576801	CHEMICAL: TYPE: POTASSIUM HYDROGEN PHTHALATE; FORM: SOLID; CONTAINER CAPACITY: 500 G; CONTAINER: BOTTLE PLASTIC; COLOR: WHITE; CAS REGISTRY NUMBER: 877-24-7; GRADE: AR	G	12 500
0761805	CHEMICAL: TYPE: SILICA GEL SELF INDICATING; FORM: GRANULES; CONTAINER CAPACITY: 1 KG; CONTAINER: PLASTIC BAG	Kg	20
0761794	CHEMICAL: TYPE: SODIUM SULFITE; FORM: POWDER; CONTAINER CAPACITY: 500 G; CONTAINER: PLASTIC	G	2000
0688744	CHEMICAL: TYPE: TARTARIC ACID; FORM: DRY POWDER; CONTAINER CAPACITY: 500 G; CONTAINER: BOTTLE PLASTIC; TRADE NAME: TARTARIC ACID; COMPOSITION: 99.5-101 PCT; COLOR: WHITE CLEAR; CAS REGISTRY NUMBER: 87-69-4; EINECS NUMBER: 201-766-0; GRADE: AR; SUPPLIER TO BE ISO 9001 CERTIFIED, CHEMICALS TO BE DELIVERED WITH CERTIFICATE OF ANALYSIS AND 16 POINT SAFETY DATA SHEET, NO REPAKED CHEMICALS TO BE SUPPLIED, ALL STANDARD TO BE TRACEABLE TO SRM FROM NIST, ONLY AR GRADE CHEMICALS TO BE SUPPLIED, EXPIRY DATE OF THE CHEMICALS SHOULD BE A MINIMUM OF 2 YRS FROM DATE OF DELIVERY, CHEMICALS TO CONFORM TO GHS LABELLING STANDARD	G	110 000
0704570	CHEMICAL: TYPE: ZINC 1000 PPM; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: PLASTIC; TRADE NAME: ZINC STANDARD SOLUTION; COLOR: COLORLESS; MSDS NUMBER: 170389; GRADE: AR; TRACEABLE TO SRM FROM NIST ZN(NO3)2 IN HNO3 2-3% 10000 MG/L ZN CERTIPUR; CERTIFICATE OF ANALYSIS SHEET AND LASTEST 16 POINT MATERIAL SAFETY DATA SHEET TO BE SUPPLIED WITH EVERY DELIVERY	ml	10 000

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0705039	CHEMICAL: TYPE: MANGANESE STANDARD AMPOULE; FORM: LIQUID; CONTAINER CAPACITY: 100 ML; CONTAINER: PLASTIC; TRADE NAME: MANGANESE STANDARD SOLUTION 1000 PPM AMPOULE; COMPOSITION: AQUEOUS SOLUTION; COLOR: COLORLESS; MSDS NUMBER: 109988; GRADE: AR; SPECIFICATION: 1000MG MN; PURITY 100 PCT +/-1 PCT; MANGANESE STANDARD AMPOULE 0.0001-0.1 PCT WATER BALANCE; LATEST 16 POINT MATERIAL SAFETY DATA SHEET AND CERTIFICATE OF ANALYSIS TO BE SUPPLIED WITH EVERY DELIVERY; CHEMICAL BE TRACEABLE TO NIST	ml	10 000
0739077	STANDARD, ANALYTICAL TEST: MATERIAL: NITRATE AMPOULE; WEIGHT: 1000 ML	ml	10 000
0751078	ACCESSORY: TYPE: ELECTROLYTE 3MOL/L KCL; STANDARD: ISO 9001; OEM P/N: 62313000; USED ON METROHM INSTRUMENT; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	ml	7500
0761806	CHEMICAL: TYPE: POTASSIUM CHLORIDE; FORM: LIQUID; CONTAINER CAPACITY: 1 L; CONTAINER: PLASTIC	L	25
0747519	ACCESSORY: TYPE: REFERENCE FILLING SOLUTION 2MOL KCL; STANDARD: ISO9001; OEM P/N: A-87.892.400; SWAN REFERENCE FOR SWAN PH ONLINE ANALYSER; VENDORS ARE RESPONSIBLE FOR ENSURING THAT THEY ARE PERFORMING AGAINST THE CORRECT DRAWING REVISION NUMBER (IF APPLICABLE).	ml	4000
0731170	CHEMICAL: TYPE: TOLUENE; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: AMBER GLASS; TRADE NAME: TOLUENE; COMPOSITION: C7H8, 92,14 G/MOL; COLOR: COLORLESS; CAS REGISTRY NUMBER: 108-88-3; EINECS NUMBER: 203-625-9; GRADE: AR GRADE; CERTIFICATE OF ANALYSIS & SDS (GHS COMPLIANT) SHOULD BE DELIVERED WITH THE CHEMICAL.	L	1250
0705043	CHEMICAL: TYPE: POTASSIUM STANDARD AMPOULE; FORM: LIQUID; CONTAINER CAPACITY: 100 ML; CONTAINER: PLASTIC; TRADE NAME: POTASSIUM STANDARD SOLUTION 1000 PPM AMPOULE; COMPOSITION: AQUEOUS SOLUTION; COLOR: COLORLESS; MSDS NUMBER: 109924; GRADE: AR; SPECIFICATION: 1000MG K; PURITY 100PCT +/-1 PCT; AMPOULE 0.0001-0.1 PCT WATER BALANCE; LATEST 16 POINT MATERIAL SAFETY DATA SHEET AND CERTIFICATE OF ANALYSIS TO BE SUPPLIED WITH EVERY DELIVERY; CHEMICAL BE TRACEABLE TO NIST	ml	10 000
0704086	CHEMICAL: TYPE: MAGNESIUM 1000 PPM; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: PLASTIC; TRADE NAME: MAGNESIUM STANDARD SOLUTION; COLOR: COLORLESS; MSDS NUMBER: 170379; GRADE: AR; TRACEABLE TO SRM FROM NIST MG(NO3)2 IN HNO3 2-3% 10000 MG/L MG CERTIPUR; CERTIFICATE OF ANALYSIS SHEET AND LASTEST 16 POINT MATERIAL SAFETY DATA SHEET TO BE SUPPLIED WITH EVERY DELIVERY	ml	10 000
0575681	CHEMICAL: TYPE: HYDROCHLORIC ACID 32%; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: GLASS; COMPOSITION: HCl; COLOR: CLEAR; CAS REGISTRY NUMBER: 7647-01-0; MSDS NUMBER: M34514; GRADE: AR	L	100

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0666062	CHEMICAL: TYPE: NITRIC ACID 65% SUPRAPUR; FORM: LIQUID; CONTAINER CAPACITY: 1 L; CONTAINER: BOTTLE GLASS; TRADE NAME: NITRIC ACID; COMPOSITION: AQUEOUS SOLUTION; COLOR: CLEAR; CAS REGISTRY NUMBER: >=65%-<70%; EINECS NUMBER: 1272/2008; MSDS NUMBER: 100441; GRADE: AR; SPECIFICATION: 65% SUPRAPUR; PURITY >65%; LASTEST 16 POINT SAFETY DATA SHEET AND CERTIFICATE OF ANALYSIS TO BE SUPPLIED WITH EVERY DELIVERY	L	25
0575673	CHEMICAL: TYPE: SULFURIC ACID; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: BOTTLE GLASS; COMPOSITION: H2SO4; COLOR: CLEAR/AMBER; CAS REGISTRY NUMBER: 7664-93-9; GRADE: AR	L	1250
0684472	CHEMICAL: TYPE: FLUORIDE STANDARD SOLUTION; FORM: LIQUID; CONTAINER CAPACITY: 500 ML; CONTAINER: BOTTLE PLASTIC; COLOR: COLORLESS; GRADE: AR; 1.19814.0500; TRACEABLE TO SRM FROM NIST; NAF IN H2O 1000 MG L F CERTIPUR	ml	10 000
0575657	CHEMICAL: TYPE: ETHANOL 70%; FORM: LIQUID; CONTAINER CAPACITY: 2.5 L; CONTAINER: GLASS; COMPOSITION: C2H5OH; COLOR: CLEAR; GRADE: AR	L	50
0731164	CHEMICAL: TYPE: METHANOL; FORM: LIQUID; CONTAINER CAPACITY: 2,5 L; CONTAINER: AMBER GLASS; TRADE NAME: METHANOL; COMPOSITION: CH4O, 32,04 G/MOL; COLOR: COLORLESS; CAS REGISTRY NUMBER: 67-56-1; EINECS NUMBER: 200-659-6; GRADE: AR; CERTIFICATE OF ANALYSIS & SDS (GHS COMPLIANT) SHOULD BE DELIVERED WITH THE CHEMICAL.	L	50
0761807	CHEMICAL: TYPE: MULTI ELEMENT REAGENT; FORM:LIQUID; CONTAINER CAPACITY: 100ml; CONTAINER: PLASTIC	ml	2000
0761997	CHEMICAL: TYPE: DP3 TOTAL CHLORINE; FORM: SOLID; CONTAINER CAPACITY: 250 G; CONTAINER: BOX; FOR TESTING POTABLE WATER CHLORINE CONTENT	Ea	1000

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Responsibilities of the contractor are as follows,

- The contractor shall be responsible for supplying quality chemicals. Analytical Grade and Certified Reference material traceable to national Metrology Standard I.e. NIST
- For quality control and traceability, the contractor shall supply a chemical together with their SDS and COA corresponding to the specific batch number of a chemical.
- The contractor shall ensure that the chemicals are tested and inspected before delivery.
- Packing - The chemical is to be contained in containers specified under point 9 above. Transport - Contractor will transport the chemicals from their factory to Grootvlei PS and the cost will be included.
- The Contractor to provide storage and preservation requirements for each chemical supplied at Grootvlei Power Station.

10. AUTHORISATION

This document has been seen and accepted by:

Name and surname	Designation
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]

11. REVISIONS

Date	Revision	Compiler	Remarks
January 2026	01	[REDACTED]	New document

12. DEVELOPMENT TEAM

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

- [REDACTED]

13. ACKNOWLEDGEMENTS

Not applicable.

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