

 Eskom	Specification	Peaking
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Title: **Technical Specification for the Emptying of Conservancy Tanks at Gariep, Vander Kloof and Palmiet Power Stations – 5-year contract**

Unique Identifier: **167A/19418-B**

Alternative Number: **27711478 VDK
27711480 PTP
27711330 GRP**

Reference

Area of Applicability: **Peaking
Engineering**

Documentation Type: **Specification**

Revision: **1**

Total Pages: **22**

Next Review Date: **N/A**

Disclosure Classification: **CONTROLLED
DISCLOSURE**

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1. INTRODUCTION

Gariep Power Station (Free State), Vanderkloof Power Station (Northern Cape), and Palmiet Pumped Storage Scheme (Western Cape) are located in areas without access to piped municipal sewage systems. The local municipality provides sewage collection for these three power stations, but their service is inconsistent and unreliable as Eskom staff often have to visit their offices repeatedly to request assistance because the municipal trucks are busy elsewhere. Additionally, these trucks frequently break down and there are not always sufficient funds to repair them, and this poses a risk during outages when these stations are required to accommodate additional employees and external contractors.

The nearest settlements to Gariep Power Station are very small towns, located in different provinces:

- Norvalspunt in the Northern Cape
- Gariep in the Free State
- Colesburg in the Northern Cape
- Venterstad in Eastern Cape

The closest settlements to Vanderkloof Power Station are very small towns, all located in the Northern Cape Province:

- Vanderkloof
- Pertrusville
- Philipstown

The Palmiet Pumped Storage Scheme is located near Grabouw next to Rockview Dam in the City of Cape Town, Western Cape. The nearest settlements to Palmiet Power Station is a small town of Grabouw.

All three stations are seeking a qualified and experienced service provider to carry out the periodic emptying and disposal of sewage/wastewater from the conservancy tanks. If the sewage is not removed consistently, it could overflow and spill into nearby water systems, resulting in water pollution, potential environmental non-compliance, and health and safety risks for the staff working at these stations. In addition to the sewage removal from the conservancy tanks, the contractor must also supply ablution facilities for the three stations. Both these services must comply with all applicable health, safety, and environmental regulations which is a requirement that aligns with Eskom's Zero Harm policy.

2. SUPPORTING CLAUSES

2.1 SCOPE

Eskom Peaking is seeking a qualified and experienced service provider to carry out the periodic emptying and disposal of sewage/wastewater from the conservancy tank located at Gariep, Vanderkloof and Palmiet Power Station. The service must comply with all applicable health, safety, and environmental regulations.

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Gariep Power Station

All sewage generated at the station is directed to Sewage Plants A and B, where solids are separated from the effluent. The effluent is then pumped to the conservancy tank located just outside the station at the Department of Water Affairs, from where it is collected by trucks for disposal. There is also a 1 kL conservancy tank located at the Security Building at the station entrance. The tank collects and stores all wastewater generated from the Security Building.

- Tank description
 - Type of tank: Conservancy tank
 - Main tank Capacity: 34 000L
 - Access: 6m wide tunnel with height restrictions of 5.4m
 - Security building conservancy tank: 1 000L
 - Number of station personnel during normal and outage condition is 35 and 130 respectively.

Vanderkloof Power Station

Sewage from the Machine Hall ablutions is collected in the Machine Hall tank and pumped to the top tank at the entrance of the Machine Hall tunnel, where it is collected by the trucks. Sewage from the basement and ground floor of the surface building collects in the sewage tank located close to the transformer yard where it is also collected by trucks.

- Tank description
 - Machine Hall sewage tank: 5 900L
 - Top tank located at the entrance of the Machine Hall tunnel: 18 000L
 - Transformer yard tank: 30 000L
 - Access: There are no restrictions observed but the tenderer will do their assessment and advise accordingly the most suitable vehicle size for collection.
 - Number of station personnel during normal and outage condition is 20 and 150 respectively.

Palmiet Power Station

Sewage waste is removed by honey sucker trucks from the main conservancy tanks, which is located inside a station on a parking bay close to the security building. The collection point is a ground-level manhole with no access restrictions to trucks.

- Main Tank
 - Type of tank: Rectangular Conservancy tank
 - Location: Parking close to the security building
 - Capacity: 14 000 L
 - Access: No truck restriction for collection

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- Control room sewage tank
 - Type of tank: Sewage holding tank
 - Location: Control room area
 - Capacity: 1 400L
 - Access: Control room area (the exact interface points to be confirmed during site visit)
 - The Number of station personnel during normal and outage condition is 100 and 300 respectively.

Technical requirements

- The service provider must supply a honey sucker for the emptying and disposal of sewage/wastewater from the conservancy tanks for the power stations.
- Contractor to provide recommendations on suitable tanker sizes, the length of suction piping, pumping head, and fittings/connections required to pump out the waste.
- All pumping and suction equipment used by the contractor must be capable of handling both liquid effluent and sludge/solid waste typically found in conservancy tanks and sewage tanks.
- Contractor will be required to monitor and communicate on the fullness level of the conservancy tank. However, the request for removal of station sewage shall only be done upon communication by the Utilities Section and / or Site Supervisor. The maximum response time allowed for emergency call-outs is 8 hours.
- Frequency of service for removal will vary depending on operating conditions.
- Contractor to provide Eskom with service report detailing the time and date of service performed including volume of waste removed, registration of vehicle used for waste collection, name of operator, disposal facility and receipt, compliance documentation for the waste transportation and disposal certificates. In addition, a tanker calibration certificate indicating the quantity of wastewater removed from site must be provided for quantity verification and invoicing purposes.
- Contractor must have completed three (3) similar scopes of work in the last ten (10) years.
- The contractor must own or have guaranteed access to all necessary plant and equipment required to perform the services safely and efficiently. This includes vacuum tankers (honey suckers), industrial pumps suitable for long-distance pumping, hoses, fittings, and any other tools needed for the scope of work. If the contractor does not own the required plant, they must provide a valid letter of Intent from the equipment owner confirming that the equipment will be available for the full duration of the contract.
- The contractor must have and maintain a Roadworthy Certificates for transportation (vehicles, trailers, tankers, etc.)
- The contractor is also expected to submit the waste management license from municipal site, safe disposal certificate for each load and waste manifest register. A disposal certificate must be submitted for each tank emptied at the station. For example, if a station has three tanks, three separate disposal certificates must be provided, one for each tank emptied.
- Contractor holds liability for unauthorized disposal.
- Contractor is to prevent any spills or water pollution and report any sewage spills to the Plant Manager, Station supervisor or SHE Representatives / Environmental officer.
- Contractor to ensure workers receive Hepatitis A injections to prevent any related sicknesses associated with sewage / wastewater and provide proof of vaccinations.

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- Sewage removal, disposal, and cleaning of mobile ablution facilities shall be carried out during Eskom normal business hours, unless otherwise instructed in writing. Normal working hours are Monday to Friday, 07:00 to 16:15

Ablution facilities - In addition to the emptying of the conservancy tanks, the contractor must also perform the following tasks:

- a) Supply and rent mobile ablution facility as and when required with a mobilization period of 24 hours.
- b) The mobile units must be provided for males, females and disabled people. Refer to the BOQ for the required number of ablution units at each station.
- c) Ablution facility to have running water with basins, taps, flushable toilets with toilet roll holders, toilet brushes and rubbish bins.
- d) Potable water can be obtained from the station by tapping into the existing Potable Water System.
- e) Ablution facility to have some type of Header / Storage tank to store potable water if the specific design / model requires so for the operation and functioning of the urinals, toilets, taps etc.
- f) Ablution facility to have some type of storage tank for the safe storage of effluent / sewage waste until it's required to be emptied or removed.
- g) Refillable Liquid soap dispensers fitted – liquid soap will be replenished and filled by Eskom PS.
- h) Refillable Hand Sanitizer dispensers fitted – sanitizer will be replenished and filled by Eskom PS
- i) Removal, disposal and emptying of accumulated waste to be performed on a basis agreed by Eskom and the supplier and on a notification basis, with the notification warning being 12 hours.
- j) The frequencies of cleaning and emptying may vary, depending on whether there are outages or projects at the power station when there are additional personnel.

Contractor to submit detailed method statements covering suction and pumping operations, sludge agitation, waste handling, and equipment usage. A traffic management plan for honey sucker truck access, as well as defined procedures for cleaning the toilet facilities.

2.1.1 Purpose

The purpose of this Technical Specification is to describe the *Employer's* technical requirements and provide the *Contractor* with the necessary information that will allow him/her to submit a comprehensive tender for the emptying of the conservancy tanks and supply of mobile ablution units.

2.1.2 Applicability

This document shall apply to Peaking and is to be used as an input to the associated Works Information for the Emptying of Conservancy Tanks at Gariep, Vander Kloof and Palmiet Power Stations.

2.2 NORMATIVE/INFORMATIVE REFERENCES

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

2.2.1 Normative

- [1] ISO 9001 Quality Management Systems.

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- [2] Investigation Report for the Gariep Sewage Plant Modification 2026
- [3] Human settlement planning and design redbook - vol 2
- [4] Draft NEC SoW Gariep and Vanderkloof Sewage Removal 5-year contract
- [5] Occupational Health and Safety Act, 1993
- [6] SANS 10400-P: 2010

2.2.2 Informative

- [1] 240-53113685 Design Review Procedure

2.2.3 Disclosure Classification

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

3. DESCRIPTION OF THE WORKS

3.1 Executive overview

This project aims to ensure the efficient emptying and safe disposal of waste from conservancy tanks at Gariep, Palmiet and Vanderkloof power station. In addition to the emptying of the conservancy tanks, the contractor must supply and rent mobile ablution facility as and when required.

3.2 Employer's objectives and purpose of the works

The *Employer's* objective is to carry out the sewage removal and disposal services to ensure a clean and healthy environment for employees which is a requirement that aligns with Eskom's Zero Harm policy.

3.3 Interpretation and terminology

The following abbreviations are used:

Abbreviation	Meaning given to the abbreviation
HSE	Health, Safety and Environment
NEC	New Engineering Contract
NEMA	National Environmental Management Act
OHSA	Occupational Health and Safety Act
O&M	Operation and Maintenance
Rev	Revision
SANS	South African National Standards
SHEQ	Safety Health Environmental and Quality
QCP	Quality Control Plan
PM	Project Management

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3.3.1 Interpretation of incorporated documentation

Wherever the following words or phrases are used in the listed or referred documentation, they are interpreted in this contract as tabled below.

Word or Phrase	Interpretation
'Eskom Holdings' (Eskom or Electricity Supply Commission) in the context of: <ul style="list-style-type: none">• Owner• Insurer of the Works• Paymaster• A party to the contract	The <i>Employer</i> .
'Eskom Holdings' in the context of: <ul style="list-style-type: none">• A duty or procedure to be performed by the administration of the contract.	The Service Manager or <i>Supervisor</i> as determined by the conditions of contract.
Accepted or approved by (or to the satisfaction of) the Service Manager, Engineer, <i>Employer</i> , or the Architect.	Accepted by the Service Manager or the <i>Supervisor</i> .
A duty, procedure, decision or action of the Engineer, <i>Employer</i> , or the Architect and or the Superintendent, Eskom's Representative, Site Supervisor or Clerk of <i>Works</i> .	An action of the Service Manager or the <i>Supervisor</i> depending on the context. Clause 14 of the Core Clauses determines what the actions of each are. Either may delegate in terms of Clause 14.2

3.3.2 Documents referenced in Works Information

Numerous documents such as standards and specifications are referenced within this Works Information. All these referenced documents including the normative references within must be adhered to during the implementation of the *works*.

Where a SANS standard referenced has been replaced by a newer standard, the *Contractor* is required to adhere to the latest revision of the newer standard. Where a SANS standard referenced is composed of several parts, all applicable parts are to be adhered to.

All national and international standards referenced are not bound in this document but are obtained by the *Contractor* at his own expense. Documents developed by the *Employer* as referenced in this Works Information are provided to the *Contractor*.

4. MANAGEMENT AND START UP

The *Contractor* has previous relevant experience with regards to the scope of the works.

The *Contractor* submits a company profile which includes a list of traceable references that adequately proves that the *Contractor* (or their Sub-Contractor) has the relevant similar (size and scope) experience as the *works*.

The *Contractor* shall be responsible for the quality of, and testing of materials, workmanship and production processes used in completing the *works*. Within 30 days of contract award and prior to the start of the

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work, the *Contractor* submits the Quality Plan in accordance with Supplier Quality Management Specification: 240-105658000.

The *Contractor* shall be responsible to submit, before commencement of any work on site, a method statement together with quality control plan and/or inspection and test plan.

4.1 Training workshops and technology transfer

None

5. ENGINEERING AND THE *CONTRACTORS* DESIGN

5.1 *Employer's* Design

N/A.

5.2 Parts of the works which the *Contractor* is to design.

No design work is required; however, the contractor must comply with the service requirements. This includes emptying, disposing of sewage waste and supply mobile ablution units as and when required. The contractor must also provide recommendations on suitable tanker sizes, suction piping length, pumping head, and required fittings or connections. All pumping and suction equipment must be capable of handling both liquid effluent and sludge or solid waste typically found in conservancy and sewage tanks.

5.2.1 Responsibility for Design and Construction

Where the *Contractor* is required to execute design work, the following applies:

- The *Contractor* is to note that he is responsible for the design of all works which have not been designed by the *Employer* and is not limited to the above.
- The *Contractor* takes full professional accountability and liability for all designs done by the *Contractor*. The *Contractor* is responsible for the design of all temporary works required for the execution of the works. The *Contractor* takes full professional accountability and liability for all designs of all temporary works required for execution done by the *Contractor*.
- The *Contractor* is required to design in accordance with the required SANS, National and Eskom Codes. Where international design codes are to be adhered to, the *Contractor* ensures that he does so. All designs, design reports and construction drawings prepared by the *Contractor* are signed off by an ECSA Professionally registered Technologist or Engineer who takes full professional accountability for the designs.
- The *Contractor* is further mandated in terms of the Construction Regulations 2014: Duties of Designer. 6(1) g to fulfil the duties described therein for the detailed designs by the *Contractor*. Any risk associated with the *Contractor's* design is to be highlighted to the *Employer* together with mitigation measures.

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- The *Contractor* is to discuss and agree with the *Supervisor* the requirements for the designs and will submit his design & drawings, for acceptance prior to the start of execution. All such material becomes the property of the *Employer*.

5.3 Procedure for submission and acceptance of *Contractor's* design

Acceptance of drawings, designs and calculations by the Service Manager will imply that:

- General arrangement and layout drawings, and (where appropriate) calculations and key diagrams have been examined and appear to be in accordance with the relevant SANS (national and international regulatory codes) and Eskom codes and standards and meet the requirements of the Works Information.
- Calculations appear to substantiate the design, rating, and performance of design in accordance with the specified requirements.
- Other drawings of Plant and associated items of supply have only been examined in relation to compatibility of the Plant etc. with the specification and in respect of the interconnections with other Plant.
- Acceptance of drawings, calculations or samples does not relieve the *Contractor* from his total liability to complete the works in accordance with the Works Information, Schedules, and the conditions of contract or exonerate him from any of his guarantees.
- All correspondence and submittals are to be prominently identified as relating to the works and is submitted under the cover of appropriate letters or transmittal notes in accordance with the correspondence procedures which will be advised by the Service Manager after the signing of the Contract. All documentation supplied by the *Contractor* to the Service Manager in hard copy is supplied in electronic format.

5.3.1 Time Required for Acceptance of Designs & Calculations by the Service Manager

Not later than thirty (30) days after receipt, the Service Manager will return one copy of the drawing marked "Accepted"; "Accepted as Noted" or "Not Accepted", as may be appropriate. The notations "Accepted" and "Accepted as Noted" authorize the *Contractor* to proceed with the manufacture of the Plant covered by such drawings subject to the corrections, if any, indicated thereon.

Where prints or drawings have been "Not Accepted" the *Contractor* shall make the necessary revisions on the drawings and submit further copies for acceptance in the same procedure as for the original submission of drawings. Every revision shall be shown by number, date, and subject in the revision block on the drawing.

5.4 Other requirements of the *Contractor's* design

The *Contractor* is to discuss and agree with the *Supervisor* the requirements for the designs and submits his drawings, for acceptance prior to the start of manufacturing. All material becomes the property of the *Employer*.

All correspondence and submittals shall be prominently identified as relating to the works and shall be submitted under the cover of appropriate letters or transmittal notes in accordance with the correspondence procedures which will be advised by the Service Manager after the signing of the Contract.

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All documentation supplied by the *Contractor* to the Service Manager in hard copy shall also be supplied in electronic format.

5.5 USE OF *CONTRACTOR'S* DESIGN

Refer to core clause 22.1 of the Works Information.

5.6 DESIGN OF EQUIPMENT

None

5.7 EQUIPMENT REQUIRED TO BE INCLUDED IN THE WORKS

None

5.8 AS-BUILT DRAWINGS, OPERATING MANUALS AND MAINTENANCE SCHEDULES

5.8.1 As-built Drawings

At least 1 month before notification of Completion of the *works*, the *Contractor* shall revise drawings where necessary to show the *works* as installed and send two copies for acceptance. Drawings shall also be submitted in an electronic format compatible with Micro Station Ver.8 supplied by Bentley Systems Inc., DWG, one PDF and two hard copies, in paper size A2. After acceptance, prints shall be provided as required of the type and in such quantities as shall be determined by the Service Manager. Drawings shall include those drawings necessary for the efficient maintenance of the Plant.

The prints and electronic files shall be deemed to form part of the works for the purpose of the Defects Liability Certificate.

As-built drawings shall have the next revision number applicable to that drawing with status "As-built" on the title block.

Before a Certificate of Completion will be issued all "as-built" data must be provided to the Service Manager on Completion of the Permanent Works. The data must be provided in electronic form or where appropriate marked up on a set of drawings. Any information in the possession of the *Contractor* which is necessary for the *Supervisor* to check the "as built" drawings shall be supplied to the *Supervisor* on a regular basis and all information must be delivered before a Certificate of Completion will be issued.

Any information in the possession of the *Contractor* which is required under this contract shall be supplied timeously to the *Supervisor* on a regular basis.

The *Contractor's* drawings are produced and developed as per the Eskom Drawing Standard.

5.8.1.1 Document Tracking System

The *Contractor* shall establish a document tracking system to record the dates for the supply and receipt of all design drawings, calculations, and requests for information.

5.8.1.2 Project Drawing Numbers & Drawing List

The *Contractor* will be issued with a series of project drawing numbers which shall apply to all drawings including those from Subcontractors. These numbers will then be used for reference throughout the project.

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5.8.2 O&M Manuals

The *Contractor* shall formulate an operation and maintenance program as well as the control philosophy of the complete system. This shall be handed to the *Supervisor* for approval on completion of the inspection and calibration of the instrumentation.

The *Contractor* shall supply a draft O&M for approval on completion of the *works*. Two (2) weeks after completion, the *Contractor* shall supply two (2) additional manuals which have been updated and include all commissioning data and “as built” drawings.

5.8.2.1 O&M Manual Layout

The manuals shall contain the following information and below is an overview of the content to be included as a minimum:

INDEX

SECTION 1: SYSTEM DESCRIPTION

A comprehensive description of the installation and the systems operation at various room requirements, with cross reference to other sections of this manual and manufacturer's brochures and pamphlets.

SECTION 2: OPERATING INSTRUCTIONS

2.1 Plant instructions

2.2 Equipment running checks

2.3 Maintenance period check list(s) with acceptable levels of operation

2.5 Detailed explanation of setting and “programming” for each system.

SECTION 3: EQUIPMENT LIST

The following information shall be provided in full for each new item of equipment:

3.1 General information: Description, make, model number, name and address of supplier, manufacturer, etc.

3.2 Design information:

3.2.1 Design data sheet containing all design and selection parameters, calculations, selection curves, etc.

3.3 Manufacturer's brochures and pamphlets including performance curves/tables for all individual items of equipment.

3.4 Maintenance data and schedules:

The lapse of time between services and the description of the service required for each part, lubrication requirements, etc.

3.5 Schedule of all spares: Civil, mechanical, electrical, instrumentation and control.

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SECTION 4: DRAWINGS

The Contractor shall be required to produce the following detailed “as built” design drawings for inclusion in the manual:

5.8.2.2 Other Information to be included in O&M Manuals

The *Contractor* shall supply where necessary and after approval by the *Supervisor*, two bound sets of operating instructions, parts lists, maintenance manuals, data books and updated as-built drawings including the following details and information where new equipment has been installed:

- Contractor’s and Supplier’s details (name, address, email address, telephone numbers)
- Contractor’s emergency (after hours) contact details
- Subcontractors/Suppliers Documents
- Test Certificates
- Certificates of Compliance
- Guarantees and Warranties

All documentation supplied is to be in the English Language of Medium. The contract shall not be accepted as complete until these have been supplied, complete and to the satisfaction of the *Supervisor*.

6. PROCUREMENT

6.1 PLANT AND MATERIALS

The *Contractor* provides all labour, gear and tools, vehicles, temporary works/ scaffolding, consumables, bulk mixing plant, Equipment and cleaning materials required to Provide the Works. The *Contractor* supplies/ procures all Plant and Material, fabrication, manufacturing, handling, storage, testing, delivery, off-loading and erection/construction, disposal of debris and finishing in every detail of works. The *Contractor* constructs any works that can be reasonably inferred from this *Employer’s* specifications.

In addition to the aforementioned, the *Contractor* adheres to the following:

- The *Contractor* is restricted to the Site
- The *Contractor* is not to enter any other areas and ensures that his employees abide by the regulations
- The *Contractor’s* Equipment does not impair the operation or access to the plant
- The *Contractor* safeguards and secures all items whilst in the *Contractor’s* custody and control, until completion of the works
- The adjacent plant and equipment are not modified without written permission from the Service Manager. Modification in this sense includes, but is not limited to the following:
 - Welding onto existing plant,
 - Drilling into structural steel or concrete,
 - Cutting or removing
 - Loading adjacent structures.

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6.1.1 Guarantee Inspection

Latent Defects Period as per the NEC Contract.

6.1.2 Product Support

Where applicable, the *Contractor* will be required to service and calibrate the instrumentation as per the O&M Manuals and provide product support for the next five years.

6.1.3 Defects Correction

All new equipment, materials and systems shall be furnished with a written guarantee with a defects liability period as per the NEC Contract from date of completion of work. These guarantees shall be furnished in favour of the *Employer*. On Completion of the required and specified work the systems, installations and equipment shall be commissioned and handed over to the *Supervisor* for acceptance.

6.1.4 Plant & Materials provided “free issue” by the *Employer*

None

6.1.5 *Contractor's* procurement of Plant and Materials

The *Contractor* registers all the plant and materials with Eskom and for materials it must be in the form of a delivery note. This ensures that when the *Contractor* needs to take something out of site, there is proof that the *Contractor* owns that particular item. All vehicles utilised for this contract must be roadworthy and certified in terms of National Road Regulations of South Africa. The *Contractor* is responsible to ensure that all his/her belongings are stored safely at all times and are not obstructing other operations in the power station.

The *Contractor* is to ensure that he stores materials in a dry area, protected from freezing, staining and damage.

6.1.6 Spares and Consumables

The *Contractor* supplies all spares and consumables necessary to provide the Works.

6.2 TESTS AND INSPECTIONS BEFORE DELIVERY

The *Contractor* shall provide a testing/ servicing and calibration program and procedure to be accepted by the Service Manager. All tests will be witnessed by the Eskom Engineer and/or *Supervisor* and therefore the *Contractor* ensures that the Service Manager is timeously informed of when and where the tests and inspections will occur.

All tests and commissioning are to be as per National and Eskom Standards.

As a minimum, before delivery of the *works*, the *Contractor* provides:

- The respective testing procedures to the *Employer* for his review and acceptance prior to conducting testing at the *Contractors* facilities.

6.3 MARKING PLANT AND MATERIALS OUTSIDE THE WORKING AREAS

All equipment and materials MUST be marked as follows: Power Station Name, *Contractor's* Name.

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6.4 CONTRACTOR'S EQUIPMENT (INCLUDING TEMPORARY WORKS).

The *Contractor* supplies, installs, maintains, and removes all temporary construction facilities and utilities necessary to provide the Works.

Additionally, the *Contractor's* Equipment does not impair the operation or access to the plant.

6.5 CATALOGUING REQUIREMENTS BY THE *CONTRACTOR*

None

7. CONSTRUCTION

7.1 TEMPORARY WORKS, SITE SERVICES & CONSTRUCTION CONSTRAINTS

For all intents and purpose, temporary works for this contract shall be any work or infrastructure and or establishment which the *Contractor* requires in order to provide the *Works*, which includes inter alia his facilities, laboratories for control and acceptance testing, connection to existing water, sewer, electricity, etc. All such temporary works shall be adequately decommissioned, restoration to natural environment and the area made good on completion of the *works*; all to the acceptance of the Service Manager.

Method statements shall be prepared prior to commencement of any work for the acceptance of the *Supervisor*. All costs relative to this aspect shall be on account of the *Contractor*

7.1.1 *Contractor's* equipment

The *Contractor* will keep comprehensive records of all of the *Contractor's* equipment brought on and removed from site.

The *Contractor* is to comply with the Safety and Site access procedures.

7.1.2 Equipment provided by the *Employer*

None

7.1.3 Site services and facilities

All services and facilities that are not specifically stated to be provided by the *Employer* and which are necessary for the *Contractor* to Provide the Works, are provided by the *Contractor*.

7.1.3.1 Electrical Supply

All points of supply are provided in terms of availability and location. The *Employer* indicates which supply points may be used. The *Contractor* is to note that generally a 220V Electrical Supply is available in the power station complex.

7.1.3.2 Potable Water Supply

All points of supply are provided in terms of availability and location. The *Employer* indicates which supply points may be used and the *Contractor* ensures that the pressure at the tap-off point is regulated to the

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correct operating pressure to ensure that the pressure and flow supplied to the end-user is within the specified range as per SANS 10252 for specific applications.

7.1.4 Facilities provided by the *Contractor*

The *Contractor* supplies all facilities to enable work and general site requirements. This will be removed by the *Contractor* on completion of the project, unless otherwise agreed and accepted by the Service Manager.

The *Contractor* is to ensure that his employees are transported in a vehicle that is approved to carry passengers. All vehicles must have safety belts for all passengers, airbags, and an ABS system.

7.1.4.1 Storage Facilities

The *Contractor* is to make his own arrangements regarding storage facilities that are required to complete the *works*. All storage facilities (Plant, Material and Equipment) will be within the boundaries of the Site in order not to affect the operations of Others.

7.1.4.2 Telephone/ Internet Facilities

The *Contractor* is responsible for arranging his own telephone/internet facilities.

7.1.4.3 Security of Works

The *Contractor* is entirely responsible for the security of all the Works, materials, equipment and lighting and other precautions as necessary to ensure security against theft, loss, or damage. The *Contractor* is advised to visit site to familiarize with the nature and position of the site.

7.1.5 Existing premises, inspection of adjoining properties and checking work of Others

Within the locality of the *works*, there are existing services (water pipes and electrical cables etc.) which the *Contractor* shall take extreme care to prevent any damages during the execution of the *works*.

The *Contractor* shall liaise with the *Supervisor* before work commences.

7.1.6 Survey control and setting out of the works

None

7.1.7 Excavations and associated water control

None

7.1.8 Underground services, other existing services, cable, and pipe trenches and covers

Within the locality of the *works*, there are existing services (water pipes and electrical cables) which the *Contractor* shall take extreme care to prevent any damages during the execution of the *works*.

The *Contractor* shall liaise with the *Supervisor* before work commences.

7.1.9 Sequences of construction or installation

The *Contractor's* programme shall clearly show and sequence the activities of all the project work to be done by the *Contractor* and the other work covered by the contract that is being done by the sub-contractors.

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The following activities are to be included, as a minimum, in the programme:

- Preconstruction Documentation Submission:
 - Final SHE File Submission to the *Employer* for review and acceptance
 - Site Establishment Method Statement Submission to the *Employer* for review and acceptance
 - All activity Method Statements Submission to the *Employer* for review and acceptance

The *Contractor* is to further note that all quality documents and Method Statements require a 14-day review period.

7.1.10 Hook ups to existing works

Hooking at heights is one of Eskom's Cardinal Rule and it is to be adhered to at all times. Failure to follow this rule and other Eskom rules are prohibited and will lead to *Contractor* being penalized and removed from the Power Station. The *Contractor* ensures that all lifelines are made available for hooking up purposes at all times where required.

7.2 COMPLETION, TESTING, COMMISSIONING AND CORRECTION OF DEFECTS

7.2.1 Work to be done by the Completion Date

On or before the Completion Date the *Contractor* shall have done everything required to Provide the Works. The Service Manager cannot certify Completion until all the work has been done and is also free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

	Item of work	To be completed by
	As built drawings of all <i>works</i> & documentation updating	Within 21 days after Completion

7.2.2 Use of the works before Completion has been certified

The power stations are operational and currently being used by Eskom and other contractors. All roads are currently being used by Eskom and other contractors. The *Contractor* shall always ensure unrestricted access to all users. Failure to do so will result in all third-party claims being passed onto the *Contractor*.

7.2.3 Materials, facilities and samples for tests and inspections

None

7.2.4 Commissioning

None

7.2.5 Start-up procedures required to put the works into operation

None

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7.2.6 Take over procedures

Acceptance of the system by the *Employer* will be based on the system being able to perform its function as per the quality requirements and hand over certificate is issued to Service Manager.

7.2.7 Access given by the Employer for correction of Defects

Access is granted to the *Contractor* for defects correction as per Core Clause 43.4 in ECC3.

7.2.8 Performance tests after Completion

None

7.2.9 Training and technology transfer

The *Contractor* is required to train the staff in the use and maintenance of all instrumentation serviced and calibrated and listed in O&M Manuals.

7.2.10 Operational maintenance after Completion

The *Contractor* is required to update the Operation and Maintenance Manuals for all of the *works*, for acceptance by the *Supervisor*.

8. PLANT AND MATERIALS STANDARDS AND WORKMANSHIP

8.1 WORKS SPECIFICATION

8.1.1 Applicable Standard Specifications

The national and statutory applicable standards and the relevant *Employer's* standards are applicable in this contract.

8.1.2 Applicable Statutory Requirements

The *Contractor* shall comply with all the relevant South African statutory requirements in terms of the employment of people on site. Site specific requirement shall not take precedence over any statutory requirement.

These include but are not limited to the following:

Code	Title
R1010	Construction Regulations
OHS Act No 85 of 1993	Occupational Health and Safety Act, 1993 Driven Machinery Regulations, 1988
NEMA	National Environmental Management Act of 1988
	Local Authority By-laws

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8.1.3 Applicable Eskom Standards

The *Contractor* shall comply with all the relevant South African statutory requirements in terms of the employment of people on site. Site specific requirement shall not take precedence over any statutory requirement.

In addition to statutory requirements, the *Contractor* is to comply with the relevant Eskom Standards, and these include but are not limited to the following:

Code	Title
QM 58	Supplier Contract Quality Requirements Specification
36-681	Generation Plant Safety Regulations
240-71432150	Plant Labelling and Equipment Description Standard
167A/49	Drawing and documentation standard for <i>Contractors</i>
167A/143	Drawing Office Standard
167A/49	Documentation Process Procedure
32-136	Contractor Health and Safety Requirements
240-62196227	Eskom Life-Saving Rules

8.2 INVESTIGATION, SURVEY AND SITE CLEARANCE

None

8.3 BUILDING WORKS

None

8.3.1 Materials and Workmanship

Only new and undamaged materials are to be used in the works. Materials to be permanently installed in the works are not to be used for any temporary purposes on site. Work is required to be for the acceptance of the *Supervisor* and is executed in accordance with the relevant manufacturer's written recommendations and instructions.

8.3.2 Proprietary Products

For the purpose of submission of tenders, rates for items described in the bills of quantities by trade names, catalogue references, etc., are for the particular type and manufacture specified.

Once the Contract has been signed the acceptance of the Service Manager is required to be obtained prior to any substitution and where products or materials, etc., other than those specified are used.

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8.4 CIVIL ENGINEERING AND STRUCTURAL WORKS

The works include the emptying, disposing of sewage waste and supply mobile ablution units as and when required. The contractor must also provide recommendations on suitable tanker sizes, suction piping length, pumping head, and required fittings or connections. All pumping and suction equipment must be capable of handling both liquid effluent and sludge or solid waste typically found in conservancy and sewage tanks

8.5 ELECTRICAL & MECHANICAL ENGINEERING WORKS

None

8.6 PROCESS CONTROL AND IT WORKS

None

9. LIST OF DRAWINGS

9.1 DRAWINGS ISSUED BY THE *EMPLOYER*

This is the list of drawings issued by the *Employer* at or before the Contract Date and which apply to this contract.

Note: Some drawings may contain both Works Information and Site Information.

Drawing Number	Revision	Title
0.38/62	8	Access roads, layout and details of road to left bank valve house – Gariep PS
18.38/3496	1 & 2	Emergency services levels for Gariep PS

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10. ACCEPTANCE

This document has been seen and accepted by:

Name & Surname	Designation	Signature
Abraar Dustay	Snr Engineering Technician – Civil & Structures	
Alkino Van Wyk	Snr Supervisor Tech Maintenance – Palmiet PS	
Nimrod Sadiki	Snr Supervisor Tech Maintenance – Gariep PS	
Riaan Ellis	Snr Supervisor Tech Maintenance – Vanderkloof PS	

11. REVISIONS

Date	Rev.	Compiler	Remarks
February 2026	0.1	S Ngeleza	Circulated for review
March 2026	1	S Ngeleza	Circulated for signature

12. DEVELOPMENT TEAM

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

N/A

13. ACKNOWLEDGEMENTS

- Alkino Van Wyk
- Nimrod Sadiki
- Riaan Ellis

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