PART 3: SCOPE OF WORK

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C3.1: EMPLOYER'S SERVICE INFORMATION

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1 Description of the *service*

1.1 Executive overview

1.1 Introduction

Arnot Power Station, situated in Mpumalanga approximately 50 km east of Middelburg, operates under a Zero Liquid Effluent Discharge (ZLED) mandate. This necessitates the complete containment and recycling of all effluent related to power generation, thereby eliminating any release of potentially contaminated effluent to the external environment. To comply with this requirement, an integrated system of containment dams and effluent recovery infrastructure is utilized to collect, treat, and redirect water back into the station's operational circuits. All containment dams referenced within this document require routine cleaning and maintenance to prevent the accumulation of sludge and encroachment of vegetation, thereby ensuring optimal hydraulic performance and environmental compliance. Furthermore, specific contingency measures are in place to facilitate the ad-hoc cleaning of oil trap dams, based on operational demand and observed degradation in system performance.

1.2 Executive summary

The works outlined on this document pertain to dredging activities (for cleaning, reed removal, oil removal and disposal, and dredging) related to South oil trap dam, Final Recovery Dam – see **Figure 1** and Seepage dams see **Figure 2 at SOW document**. The document also specifies standards and guidelines to be followed throughout the execution of the work. The scope further covers waste classification, transportation, and disposal.

1.3 Works information

The scope of works is as outlined in the following sections. It entails the provision of the following:
Bathymetric survey of Final Station Recovery Dam and Seepage Dam to determine the amount of sludge in m3.

Perform dredging of North oil trap dam, Final Station Recovery Dam, Seepage Dam.

Temporarily stockpile and/or dewater the dredged sludge/sand/silt from the coal stockyard sump.

Removal and transportation of sludge for disposal at an approved, licensed disposal facility (outside the boundaries of Arnot Power Station) in accordance with the applicable regulatory requirements.

The following shall also apply to the activity:
Desludging and cleaning of North oil trap dam, Final Station Recovery Dam and Seepage Dam, including disposal at an approved facility will be required for 9 hours a day as and when the plant needs to be utilized. The prescribed period shall be in adherence with 9 hours, and the time related to either methodology. The service period is set for three (3) months.

The bathymetric surveys are to be used where applicable as a reference for sludge/silt/sediment volumes removed, with contours assessing sediment depth and monitoring layer removal.

Dredging operations shall comply with the specified depth requirements outlined in the dam's approved design drawings where these are available and/or where determined by the *System Engineer - Dams*, ensuring a minimum of at least 95% sediment removal. Under no circumstances shall dredging exceed the design elevation and/or the lowest depth of sludge, as this may compromise the integrity of the dam's clay liner. Any damage resulting from over-dredging shall be deemed the *Contractor's* responsibility and subject to full repair at the *Contractor's* cost.

The *Contractor* shall maintain a dredging log with depth data, quantity, dates, and equipment used. Payment for sludge removal and transportation to the disposal facility is based on the volume or mass of slurry removed (Rand/ton).

The slope of the dam walls is essential in maintaining dam stability and safety. The *Contractor* must take photos before and after dredging. Any slope changes requiring repair will be at the Contractor's expense.

The *Contractor* shall notify the *Contract Manager* and *System Engineer – Dams* should there be a need to revise the methodology of dredging to suit operational requirements.

The *Contractor* shall revise and communicate a revised method statement. The revision shall take cognisance of the time constraints, structural integrity of the dam and environmental constraints of the site.

1.4 Performance and technical specifications

1.4.1 Desludging and transportation

Cleaning and desludging shall be in the form of dredging (preferred option), agitation of slurry, pumping from the dam and subsequent transportation and disposal of the dredged material. The approved methodology shall include dredging into dewatering bags, the use of an amphibious excavator or similar approved, or a combination of these methods. Where the *Contractor* elects to use another method of dredging, transportation and/or disposal into a facility than that prescribed/recommended, approval is to be solicited from the *Employer.* All drivers transporting waste material shall hold the appropriate valid licenses.

1.4.2 Typical amount of sludge

The below quantities are based on estimate design quantities of the dams.

Table 1: Estimate waste quantities Dam	**Dam capacity in meters cubed (m^3)**	**Composition**
North Oil trap dam	2000	Ash, Silt, Crusher run sand
Seepage dam	4 000	Ash and soil
Final Recovery dam	6 092	Ash, Silt, Crusher run sand

- The *Contractor* shall confirm the quantities of sludge in North oil trap dam, Final Station Recovery Dam and Seepage Dam, by conducting bathymetric surveys for the respective dams.
- Provision of an interpretative report with documentation of the results in PDF plots, xyz data sets and a DTM.

1.4.3 Dewatering facility – Coal Stockyard

A dedicated temporary disposal and Geotube® dewatering area shall be determined by the *Employer.* Provision shall be made for the placement of Woven Circumferentially Seamed Dewatering Tubes, or equivalent approved, with a seam strength of 30–73 kN/m and a maximum fill height < 1.5 m as per the manufacturer's specifications.
The *Contractor* shall prepare the area in accordance with the environmentally suitable disposal requirements. The preparation shall prevent, as a minimum, the permeation of polluted oily water into the ground. The layout of the area shall be efficiently utilised to ensure that continuous pumping operations can be maintained, including periods when certain tubes are undergoing drawdown, consolidation, drying, removal, or replacement

The *Contractor* shall construct a suitably compacted bund berm around the dewatering area to prevent the accumulation of rainwater in the area. The *Employer* shall provide the construction material, and the *Contractor* shall transport it to the area for construction.
Platform dimensions for dredger shall be sized to accommodate the largest Geotube® unit, unless site constraints require otherwise, in which case the *Contractor* may propose smaller platforms for smaller tubes subject to *Employer* approval.
The *Contractor* shall provide a polymer dosing facility, suitable for conditioning slurry dredged or pumped from the station drains. The dosing system shall ensure effective flocculation to achieve:

- Efficient solids capture within the Geotube® units
- High water-release rates
- Maximised solids concentration at the end of each filling cycle

The dosing system shall be supplied, calibrated, operated, and monitored by the *Contractor* in accordance with manufacturer recommendations and good industry practice.

1.4.4 Sludge deposition

Due to the variety of the contents (Silt, sand, soil, and crusher run sand) of the dredging of the dams, the *Contractor* shall elect to apply the following methodologies to suit they type of waste:

- Dewatering tubes

The *Contractor* shall deposit sludge into the dewatering tubes in accordance with the approved method statement and any additional *Employer* requirements. The *Contractor* shall monitor each filling cycle to ensure adequate dewatering and consolidation time is achieved before subsequent filling events. The *Contractor* shall obtain *Employer* 's approval at key stages within each filling cycle.
Under no circumstances shall the dewatering tube height exceed the manufacturer's maximum allowable filling height.
The *Contractor* shall implement controls and monitoring to prevent overfilling and to ensure uniform loading and safe operation of all dewatering tubes.

- Sludge conditioning

The *Contractor* shall bulk the sludge by mixing it with a suitable, approved dry material in accordance with the approved method statement and any additional *Employer* requirements. The *Contractor* shall monitor each mixing cycle to ensure that the required level of bulking and moisture reduction is achieved before proceeding with subsequent handling and transportation.

1.4.5 Oil Removal from Dams, Silt Traps and Channels Surfaces

Where a layer of surface oil or grease is present on the riprap of the buffer dam, on the bricks of the oil traps or on the sides of any channel or other concrete structure including the sedimentation trap, etc., the *Contractor* shall remove this. The *Contractor* shall quantify the affected area before a works order or approval is given to commence with the work. This is verified by the *Employer* and paid per m3 as per the approved method statement provided by the *Contractor*. This method statement shall be approved before any cleaning activity commence.
Where oil is present on any of the dams or ponds, the *Contractor* shall skim the oil with an approved method and stored in approved hazardous containers for disposal or recycling, proof of to be shared with *Employer* for purposes of payment, which will be for each Liter disposed/recycled.
Alternatively, where oil spillages occur on concrete areas, the *Contractor* may remove the oil using approved oil absorbent equipment. These may be stored in skips for disposal. The skips shall be weighed at the weighbridge prior to disposal. The mass of oil absorbed shall the used for the purpose of payment.

1.4.6 Management Of Spillages During Cleaning Operations

All spillages by the Contractor shall be cleaned with vacuum trucks to prevent contamination of the environment. All spillages must be reported immediately to the Employer. The trucks load bays must be sealed to prevent spillages along the road during transportation. All drivers must be trained and licensed to transport hazardous waste, where there is waste classified as hazardous. All fuels to be used must be stored in a leak-proof container in a bund. Any spillages to be reported and cleaned.

1.4.7 **Removal, Handling and Disposal of Vegetation**

Vegetation must be, removed, handled, dewatered, and disposed of in the designated dewatering facilities as indicated in this scope by the *Contractor*. The *Contractor* shall submit a detailed vegetation removal and disposal methodology for each dam.

1.4.8 Desludging works information

Dredging shall be conducted in a sequence determined by operational conditions and in accordance with a plan agreed upon and documented through stakeholder engagement. The sequence shall consider the results of the water balance and shall be coordinated with Chemical Services, Auxiliary Engineering, and Operating Support. All dredging activities shall be performed while the dams remain in operation.

(a) North oil trap dam and Final Station Recovery Dam

The *Contractor* shall ensure that they align their activities with the water balance conducted by Chemical Services. Dredging of North oil trap dam and Final Station Recovery Dam shall be according to the following:

1) Discharge into the Final Station Recovery Dam shall be minimised in due time to allow for the level in the dam to be as sufficiently low as possible wherein the ‘final discharge facility’ shall be Buffer Dam, as informed by the water balance to prevent any overflows during agitation.
2) The dam shall be dredged up the design depth of the dam or 95% of the sludge bottom level whichever is attainable as depicted on the bathymetric survey results. The Contractor is to supply, deliver and connect all materials required and used during dredging activities.

3) Final Station Recovery Dam and North Oil Trap Dam are comprised of a variety of sediments. The dredging of the variety of sediment shall be dredged in two phases:

- **Phase 1 (Ash slurry with oil)** - Sludge shall be pumped along a distance in excess of 750 m via lay flat pipes from the dam to the dewatering area at intervals consistent with the dewatering bag manufacturer’s guidelines. The Contractor shall supply, deliver and connect a dredging pump, lay flat pipes and Geotube ® dewatering bags or similar approved. The size of the bags shall be determined by the quantity of sludge determined from the estimate figures and the bathymetric survey. The Contractor shall supply and deliver a chemical dosing plant

with sufficient flocculants which shall be applied as required to improve and stabilise the solids concentration of the sludge. The sludge shall then be further conditioned by the Contractor by mixing with suitable dry material, as determined by site requirements, to achieve an appropriate solids content for temporary stockpiling and to ensure suitability for subsequent transportation and or disposal. The Employer shall supply the respective material, and the Contractor shall transport it to the area where conditioning shall occur.

- **Phase 2 (Sand/Crusher Run Sand)** – Sludge and sand shall be removed using an amphibious excavator or a similar approved. The Contractor shall supply and deliver the respective plant and make the necessary arrangements to ensure that the plant is in working order. It should be noted that the area contains overhead powerlines, and suitable clearances must be confirmed with the Employer prior to dispatching the equipment to site. Where required, the Contractor shall supply and deliver a smaller excavator which shall be used to reduce manoeuvring challenges in compact areas, particularly adjacent to the embankment and Buffer Dam spillway outlet. The sludge shall be loaded into and contained within waste skips for proper disposal in accordance with site requirements. The Contractor shall supply and deliver a suitable number of waste skips based on the measured quantity of sludge.

4) The said activity shall not purport to increase the capacity of the dam or attempt to make any modifications to the basin and the slopes of the dam. The depth of the dredging shall be monitored and maintained by a methodology prescribed by the Contractor with the approval of the System Engineer–Dams.

5) The sludge from both phases shall be transported by the Contractor to an approved waste disposal facility outside of the boundaries of Arnot Power Station.

(b) Seepage Dam

The seepage dam adjacent to the AWR low level dams 2a and 2b is cleaned as it is overgrown with vegetation and silted up which compromises the capacity of the dam and poses a risk of suction blockage of the seepage pump. Dredging of the Seepage dams shall be according to the following:

- The dam shall be dredged up the design depth of the dam or 95% of the sludge bottom level whichever is attainable as depicted on the bathymetric survey results. The Contractor is to supply, deliver and connect all materials required and used during dredging activities.

- Vegetation on the side slopes and inside of the seepage dam is to be removed. Care should be taken to only remove vegetation in the specified location.

- The Contractor shall supply and deliver a suitable excavator with ample reach shall be used or any alternative method with the approval from the System Engineer–Dams to dredge and remove the vegetation without undermining the dam's structural integrity and damaging the dam wall and basin. The cost to repair damage is for the account of the Contractor.

- The dredged/excavated ash shall be loaded into waste skips at an area near the dam as approved by the Employer.

- Disposal and transportation of the sludge/ash shall be conducted at an approved area at the top of the ash dam.

- The Contractor shall supply and deliver suitable plant to spread and compact the ash at the designated area.

- The said activity shall not purport to increase the capacity of the dam or attempt to make any modifications to the basin and the slopes of the reservoir. The depth of the excavation shall be monitored and maintained by any methodology prescribed by the Contractor with the approval of the Employer.

1.5**. General Requirements**

- The Contractor shall supply and deliver a dredger that is capable of extracting silt up to a depth of up to 3.0 m below the full supply level.

- The pumping capacity of the dredger shall be able to transport sludge to an area located approximately 1 km from the dam.

- The Contractor shall supply and deliver a lay flat pipe with the ability to span in excess of a distance of 1 km.

- To maintain the dredger stability, the Contractor shall construct his own anchors along the Final Station Drains perimeter for positioning the dredger; alternatively, the Contractor shall use the dredger's integrated spud pole system for positioning.

- The Contractor shall supply and deliver a diesel pump (diesel to be provided by the contractor) to control the level in the dams to a manageable level for dredging, should the inflow be high.

- Dredging shall be terminated when the original depth of the dam intercepted.

- Should there be any anomalies (seepage, signs of piping etc.) identified during the removal of vegetation and pumping of sludge, the works shall be terminated, and the System Engineer–Dams shall be notified of the findings to provide technical advice.

- Should the Contractor elect to deviate from this scope of work or any of their approved method statements based on site conditions or operational needs, the Contractor shall compile the amendment and communicate it to the System Engineer–Dams for approval.

- The transportation and disposal of the waste from the dams to the approved (Employer and Contractor to discuss and approve) designated dewatering facilities and waste disposal site outside the boundaries of Arnot Power Station shall be the responsibility of the Contractor.

- The cleared-out vegetation, mainly reeds, shall be dumped at the Rietkuil dumpsite only if not contaminated with ash. Care should be taken to sample and classify the sludge at the dam, post drawdown. If contaminated, it should be dumped in accordance with the correct environmentally compliant way as determined on Table 1. An Arnot Power Station Environmental representative shall make the decision. A register is to be kept of the area and type of vegetation removed.

- All spillages shall be promptly addressed and reported immediately to the Employer.

- Safety PPE (including all rescue equipment for deep-water work, reflective vests), security, portable chemical toilet, shelter, transport, accommodation, all fuel needed for operation as well as direct supervision while work is in progress is to be provided by the Contractor.

- Contractors' supervisor has knowledge and act as Safety Representative. The Contractor does the necessary Risk Assessments daily and records minutes.

- The Contractor shall present his SHE files, to Arnot Safety Department for verification and ensure that all personnel attend the mandatory induction course presented by the Safety Department.

- All embankments, and related appurtenance structures (e.g., spillways, roads, drains etc.) may not be damaged. The cost to repair damage shall be for the account of the Contractor.

- Final acceptance of the works shall be based in the satisfaction of the Employer. Payment shall be based on completion and not on time or volume of slurry removed. Quotation is to be done accordingly.

- All safety requirements of the Employer must be adhered to including Plant Safety Regulations in terms of working under permit, Eskom Life Saving Rules, and all applicable Health and Safety requirements. The Employer provides a Responsible Person in terms of the regulations for the required permits. The Contractor supplies a competent supervisor with the necessary training and

- All electrical supplies need to be supplied by the Contractor in the form of mobile diesel generator. The supply and cost of fuel is allowed for by the Contractor.

- The Contractor shall ensure that they are cognisance of the overhead high voltage lines or wires, and they shall work safely below them, work shall not commence before the ORHVS permit is obtained from Eskom.

1.6 Project Plan

The Contractor shall develop a detailed Project Plan and schedule for the entire scope of work. This plan must be submitted to the Employer for review and approval at least two days prior to commencement of the works. The Project Plan should include:

Work Breakdown & Timeline: A breakdown of all major tasks (as outlined in this scope) with a timeline/Gantt chart indicating start and finish dates for each activity, milestones (e.g. completion of retaining walls, liner installation, mechanical installation, etc.), and the critical path.

Resource Allocation: Identification of key resources (labour, equipment, materials) required for each phase of the project, and any site access or outage requirements (if portions of the plant need to be taken out of service).

Milestones & Deliverables: Include key milestones such as submission of design reports, start of construction, intermediate inspections, testing/commissioning (for mechanical works), final inspection, and handover. Also schedule the submission of deliverables like design documents, method statements, and as-built drawings.
The project may not commence until the plan is approved. Progress against this plan should be tracked and reported regularly to the Employer. All communication must be routed to the Project Manager.

1.7 Documentation and Quality Control Requirements

The Contractor is required to comply with the Employer's quality requirements as detailed in 240105658000 Supplier Quality Management Specification and all relevant legislation pertaining to this scope.
The Contractor shall submit method statements for executing the works as detailed in this scope, with his quotation for the works.
Further, the Contractor submits a detailed QCP for the cleaning of each of the areas/dams/trenches, etc. as detailed in this scope, for the System Engineer - Dams acceptance, prior to commencing with the work.
The Contractor submits datasheets (including safety data sheets) for all consumables/products for use during any of the cleaning operations.
The Contractor shall submit calibration certificates for all test instrumentation utilised in the execution of the works. The calibration certificate must be valid at the time of use of the instrument.
The Contractor shall submit at least 3 completion certificates, with contact details for references where dredging operations were successfully conducted, for similar type and size dams and shall have at minimum 3 years' experience in dredging. These shall be submitted with the quotation.
The Contractor complies with relevant international standards, Eskom standards and Arnot Power Station Procedures as detailed in the scope, and any other additional requirements provided by the Employer

1.8 Clarification

Risk Communication: The *Contractor* shall immediately communicate any matters that may lead to safety or environmental risk to the *Service Manager*.

1.9 Specifications

General specifications
Health and Safety requirements
Environmental requirements
Site regulations and access control

Technical specifications
SANS 1200 A (1986): General
SANS 1200 AA (1986): Small works
SANS 1200 DE (1982): Small Earth Dam

2.0 Interpretation and terminology

If required include here definitions additional to those used in the *conditions of contract* which are required only for the purpose of making the Service Information easier to draft and read. Also list abbreviations used and provide a full interpretation of each one, for example:

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
QC	Quality Control
QCP	Quality control program/plan/procedure
SHE	Safety, Health & Environmental
SHEQ	Occupational Safety, Health, Environmental, and Quality
OHSA	Occupational Health and Safety Act
PSR	Plant Safety Regulation
ORHVS	Operating Regulations for High Voltage Systems

2 Management strategy and start up.

2.1 The *Contractor*'s plan for the *service*

- The *Contractor* submits a first plan to the Service Manager for acceptance within the period stated in the Contract Data
- The Contractor shows on each plan which he submits for acceptance
    - the starting date and the end of the service period,
    - the order and timing of the work of the Employer and Others as last agreed with them by the Contractor or, if not so agreed, as stated in the Service Information,
- provisions for
    - time risk allowances,
    - health and safety requirements and
    - the procedures set out in this contract,
- the dates when, in order to Provide the Service in accordance with his plan, the Contractor will need
    - access to the Affected Property as stated in the Service Information,
    - acceptances,
    - Plant and Materials, equipment and other things to be provided by the Employer and
    - information from Others,
- for each operation, a statement of how the Contractor plans to do the work identifying the principal Equipment and other resources which he plans to use and
- other information which the Service Information requires the Contractor to show on a plan submitted for acceptance.
- Plan to include disposal method to accommodate the 90 days due

2.2 Management meetings

Regular meetings of a general nature may be convened and chaired by the *Service Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Risk register and compensation events	TBC	MS Teams	*Employer*, *Contractor, Supervisors,* department manager

Overall contract progress and feedback	TBC	MS Teams / OSSD Board Room	*Employer*, *Contractor, Supervisors,* department manager
Kick Off meeting	Prior commencement of work	OSSD Board Room	*Employer*, *Contractor, Supervisors,* department manager

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *service*. Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

2.3 *Contractor*'s management, supervision and key people

An organogram to be supplied by the contractor depicting resources for the following functions:

- Competent Site Supervisor / manager with good communication skills, trained in Risk assessment, Environmental knowledge and certificate as proof of working knowledge of the NEC.
- Health and Safety Officer with SHEQ competency(environment knowledge & background essential)
- Staff needed for the day-to-day operation of machinery such as pumps and any other equipment needed. These people need to be trained and competent. Certificates supplied by contractor.
- All drivers of the excavators, trucks etc. These drivers need to comply with the national road ordinance, licensed and trained in waste removal.

2.4 Permit to Work or Work Permit

It is the sole responsibility of the Contractor to ensure at all times there is an authorised Responsible Person to take out permits for the execution of the service. The Employer will provide all training necessary for the selected Contractor's personnel to be authorised on Eskom Plant Safety Regulation and Operating Regulations for High Voltage Systems.

2.5 Documentation control

- Each instruction, test certificate, acceptance, notification, reply and other communication, which this contract requires, is to be communicated in a form, which can be read, copied and recorded.
- Writing is in the Language of this contract.
- All reports to be discussed, compiled and handed over to Eskom
- All method statements to be discussed compiled and handed over to Eskom where applicable.
- All communications, Certificates, Method Statements must be printed and filed in the Purchaser's Data file

2.6 Invoicing and payment

The Z clauses make reference to invoicing procedures stated here in this Service Information. Also include a list of information which is to be shown on an invoice.

Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Service Manager*'s payment certificate.

The *Contractor* shall address the tax invoice to

invoiceseskomlocal@eskom.co.za

and include on each invoice the following information:

- Name and address of the *Contractor* and the *Service Manager;*
- The contract number and title;
- *Contractor*'s VAT registration number;
- The *Employer*'s VAT registration number 4740101508;
- Description of service provided for each item invoiced based on the Price List;
- Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
- (add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

2.7 Contract change management

N/A

2.8 Records of Defined Cost to be kept by the *Contractor*

- Where Contractor does Name Changes, Mergers, Acquisitions and Cessions the Employer's procedures must be followed. (Eskom Procurement and Supply Management)
- In a case where one Contractor takes over from another *Contractor*, the *Site Service Manager* must be notified in writing immediately.
- The *Contractor* does not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*.
- Changing the Service Information
- Access
- Provision by the *Employer*
- Stopping work
- Work of the *Employer* or others
- Reply to communication
- Changing a decision
- Withholding acceptance
- Delayed tests or inspections
- Change of Affected property
- Materials, facilities, etc. for tests
- *Employer's* risks
- Assumption about Compensation Events
- *Employer's* breach of contract

2.9 Insurance provided by the *Employer*

N/A

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in Annexure B to this service Information.

In addition to the requirements of the laws governing health and safety, Eskom have some additional requirements particular to the service and the Affected Property for this contract.

Particular consideration must be given to the following Eskom Life Saving Rules:
1. Isolate, test before touch

2. Hook up on height
3. Buckle up
4. Be sober
5. Permit to work

Eskom SHEQ Policy

Eskom has made a commitment to conduct business with respect and care for people, the environment and assets and that no operating condition or urgency of *service* justifies exposing anyone to negative risks arising from Eskom's business.

Compliance with the Eskom SHEQ Policy and applicable regulations is the responsibility of every employee and *Contractor*.

***Contractor* SHEQ Policy**

All *Contractors* shall have an OHS policy signed by the CEO of the *Contractor* and prominently displayed where employees normally report for duty.

Signed copy of the OHS policy shall form part of the SHE file.

SHE Plan Requirements

- Principal *Contractor*s shall develop a suitable and sufficiently documented site specific SHE plan, based on the scope of work and client SHEQ specification.
- The SHE plan must be pre-approved by the client for implementation. The principal *Contractor/Contractor* has a responsibility to send the SHE plan to the client for approval prior to commencement of work.
- The SHE plan must be applied from the commencement of and for the duration the construction work, which must be updated / reviewed as the work progresses/changes.

When a principal *Contractor* intends appointing *Contractor*, the principal *Contractor* shall ensure that the *Contractor* provides and demonstrate a suitable, sufficiently documented and coherent site specific health and safety plan, based on the client's SHEQ specifications and scope of work

- The *Contractor* must ensure that all personnel attend the *Employers* health and safety Induction Course prior to starting with the works.
- All Eskom health and safety requirements to be adhered to
- *Contractors* Health and Safety file to be handed in for approval, and kept up to date by the *Contractor*

Health and Safety Arrangements

The *Contractor* ensures that all his personnel attend a Health and Safety Induction Course prior to contract starting date and annual re- induction. The Induction Course is presented by the *Employer's* Safety Risk Department at Arnot Power Station. Arrangements must be made with Safety Risk Management, by the *Contractor.*

The *Employer's* Safety Risk Manager visits and inspects the *Contractor's* workplace or site yard and the working areas to ensure that tools, machinery and Equipment comply with the minimum safety requirements.

The *Service Manager* may instruct the *Contractor* to stop work, where the *Contractor's* personnel fail to conform to safety standards or contravene health and safety regulations. Such stop-work order is not a compensation event. The *Service Manager* may instruct the *Contractor* to discipline his employees and to submit a disciplinary action report to the *Service Manager*. The *Contractor* implements additional health and safety precautions where necessary.

The *Contractor* complies with the Occupational Health and Safety Act 85 of 1993, as well as Eskom procedure as stipulated below:

The Contractor shall at all times comply with the health and safety requirements prescribed by law applicable to these services, including Eskom health and safety procedures amended for the duration of the contract. Minimum:

1. Project SHE specification provided.

2. Basic conditions of employment act no 75 of 1997.
3. Compensation for Occupational Diseases and Illnesses Act 130 of 1993
4. Occupational health and safety act no 85 of 1993 and regulations.
5. National road traffic Act 93 of 1996.
6. 32-37 Eskom substance abuse procedure.
7. 32-136 Eskom contractor health and safety requirements
8. 240-62196227 Eskom life- saving rules
9. 32-95 Eskom environmental, occupational health and safety incident management procedure
10. 32-727 Eskom SHEQ policy
11. 240-62946386 Eskom vehicle and driver safety management procedure
12. Disaster management Act, 2002 (Act No. 57 of 2002)

- The *Contractor* acknowledges that it is fully aware of the requirements of all the above and undertakes to employ only people who have been duly authorised in terms thereof and who have received sufficient safety training to ensure that they can comply therewith.

- The *Contractor* undertakes not to do, or not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

- The *Contractor* shall appoint a person who will liaise with the Eskom Safety Officer responsible for the premises relevant to this contract.

- Do safety audits at the *Contractor's* premises, its work-places and on its employees;

- Refuse any employee, sub-*Contractor* or agent of the *Contractor* access to its premises if such person has been found to commit any unlawful act or any unsafe working practice or is found to be not authorised or qualifies in terms of the OHSACT;

- Issue the *Contractor* with a work stop order or a compliance order should Eskom become aware of any unsafe working procedures or conditions or any non-compliance with the Act, Regulations and Procedures by the *Contractor* or any of its employees, sub-*Contractor*s or agents.
- The *Contractors* Health and safety file is to be submitted for approval to Arnot's Safety Officer before contract commencement
- The Contractor shall maintain records of all man-hours, including sub-contractors during this record.

- The Contractor shall ensure minimum wage compliance for the different skills and to which Bargaining Council compliance is made to and proof of membership, if any.
- The Contractor shall implement and maintain Risk Assessment for this type of services.

All work stoppages called by the *Employer* to be adhered to

First aid and fire fighting

Adequate first aid and firefighting equipment to be provided by the *Employer*
Thel *Contractor must appoint atleast one* personnel with First aid and firefighting training

- ***Contractor* to provide own Fire Extinguishers**

Fire Precautions

Any tampering with the *Employer's* fire equipment is strictly forbidden.

All exit doors, fire escape routes, walkways, stairways, stair landings and access to electrical distribution boards is kept free of obstruction, and are not used for work or storage at any time. Firefighting equipment must remain accessible at all times.

The *Contractor* takes the necessary action to safe guard the area to prevent injury and the spreading of the fire.

Security, fire protection and safety

The *Contractor* shall be responsible for ensuring the security of the works, and of his plant, equipment and materials. To that end he shall make adequate provision for access control, lighting and watchman to the works where required.

Fire protection

The provision of Eskom's standard NWS 1494 "Fire Prevention and Protection of *Contractor's* premises at New Works Sites" shall be applicable.

Safety and incident prevention

The *Contractor* shall implement and maintain an active Site Safety and Accident Prevention Programme in accordance with the Arnot's SHEQ Specifications. The overriding regulations will however be the Occupational Health and Safety Act.

Reporting of accidents

The *Employer* follows an accident prevention policy that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The *Contractor* is expected to fully co-operate to achieve this objective. The *Service Manager* must be informed immediately of any incidents. A written report to be submitted to the *Employer within 24 Hours* of incidents and any damage to property or equipment

NOTE! This report does not relieve the *Contractor* of his legal obligations to report certain incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

Occupational Health and Safety Act 85 0f 1993 – SECTION 37

In accordance with Section 37 (2) of the Act, the *Contractor* is appointed by the *Employer* as mandatory to assume Health and Safety duties and responsibilities. The *Contractor* ensures compliance with all requirements of the Act and any instruction or notification that enhances those requirements.

The *Contractor* acknowledges that he is fully aware of all the requirements of the Occupational Health and Safety Act and undertakes to employ only staff who have been duly authorised in terms thereof and who receive sufficient safety training to ensure that they can comply therewith.

The *Contractor* undertakes not to do, and not to allow anything to be done which will contravene any of the provisions of the Act, Regulations or Safety and Operating Procedures.

3 The *Contractor* appoints a person who liaises with the *Employer's* Safety Officer, responsible for the premises relevant to the Contract. The person appointed shall on request:

- Supply the *Employer's* Safety Officer with copies of minutes of all Health and Safety Committee meetings, whenever required.
- Supply the *Employer's* Safety Officer with copies of all appointments in respect of employees employed on this contract, in terms of the Act and Regulations and shall notify The *Employer*'s Safety Officer of any changes thereto.

The *Employer* may, at any stage during the duration of this contract:

- perform safety audits at the *Contractor's* premises, its work place and its employees;
- refuse any employee, *Sub-Contractor* or agent of the *Contractor* access to its premises if such person is found to commit any unsafe act or any unsafe working practice or is found not to be duly authorised nor qualified in terms of the Act;

- Issue the *Contractor* with an instruction to stop work should the *Employer* aware of any unsafe working procedure or condition or any non - compliance with The Act, Regulations and Procedures referred to in the Occupational Health and Safety Act - 85 of 1993 and all Regulations made hereunder as well as all the *Employer's* Safety and Operating Procedures. Any such instruction is not a compensation event. Furthermore, no Amendments to the act or the Regulations or reasonable amendment to the *Employer's* and Operating Procedures will entitle the *Contractor* to claim any additional costs or Time incurred in complying therewith, from the *Employer*

Safety Regulations of the *Employer*

The *Contractor* conforms to the Eskom Plant Safety Regulations and Operating Regulations for Hugh Voltage Systems.
The *Employer* makes available to the *Contractor*, on request, a copy of the latest revision of the Plant Safety Regulations and Operating Regulations for High Voltage Systems.

3.2 Environmental constraints and management

The Contractor shall comply with the environmental criteria and constraints stated in the Waste management procedure (ASEN 0008) and EH&S Incident management procedure 32-95 .The Contractor shall further comply with all Arnot's procedures and policies and all level 3 documentation and legislations which the station prescribes to

3.3 Quality assurance requirements

The returnable in terms of Quality will be based on the Supplier Quality Management Specification 240-105658000. The supplier will submit the quality information that is relevant to them based on the selected category. Refer to document 240-105658000. In case where there are QCP (quality control plans) required also 3.2 and 5.1 of the document 240-105658000 will be applicable. Employer has a right to issue an NCR should the Contract fails to meet the agreed target date or should the Contractor be unavailable when needed.

4 Procurement

4.1 People

4.1.1 Minimum requirements of people employed

General workers or assistants, shall be employed from the local community, there are local structures that can be contacted through the security office to access the database of the locals.

The people who are executing the work on-site need to be reflected in the safety file. New people to be approved by the safety officer and safety file to be revised.

4.1.2 BBBEE and preferencing scheme

As per clause Z3 within Contract Data.

4.1.3 Accelerated Shared Growth Initiative – South Africa (ASGI-SA)

N/A

4.2 Subcontracting

4.2.1 Preferred subcontractors

N/A

4.2.2 Subcontract documentation, and assessment of subcontract tenders

N/A

4.2.3 Limitations on subcontracting

N/A

4.2.4 Attendance on subcontractors

N/A

4.3 Plant and Materials

4.3.1 Specifications

The integrity of all the dams cleaned by the Contractor must not be affected

4.3.2 Correction of defects

Where the integrity was affected and damage is evident caused by the Contractor, the Contractor will be liable and held responsible for the repairs to the Employer's satisfaction.

4.3.3 *Contractor*'s procurement of Plant and Materials

All plant and materials required by the Contractor to be supplied by the Contractor

4.3.4 Tests and inspections before delivery

N/A

4.3.5 Plant & Materials provided "free issue" by the *Employer*

The Employer does not supply anything for the works.

4.3.6 Cataloguing requirements by the *Contractor*

N/A

5 Working on the Affected Property

This part of the Service Information addresses constraints, facilities, services and rules applicable to the *Contractor* whilst he is doing work on the Affected Property.

5.1 *Employer*'s site entry and security control, permits, and site regulations

- Lifesaving rules must be adhered at all times.
- Access is limited and controlled by Plant Safety Regulations requirements.
- No employee will be allowed to access the plant or to work without access permit issued.
- All personnel to work on the plant must be registered on the Worker's Register by the Responsible Person.
- All personnel must attend induction before working on site and they must obtain gate permits via the Service Manager.
- Unauthorised access to site is prohibited. The personnel are expected to be at their working site area at all times.
- No recruitment on site or at the main access gates.
- All activities to comply with the OHSACT regulations

5.2 People restrictions, hours of work, conduct and records

- Normal working hours is Eskom working hours

Monday to Thursday 07:00 - 16:15
Fridays 07:00 - 12:00

- Outage time is 06:00 – 18:00 as per negotiation
- Other hours will be determine as per critical path activities during outages / breakdowns
- Overtime / Shift work on a as and when required basis, but must be approved by the Service Manager
- Daily time sheet must be kept up to date of normal time and overtime worked at all times. Employer's Contractors time sheets to be used
- Standby / Call-out might be required or on an as and when required basis depending on the plant status (Breakdowns)
- The Contractor must be available for any plant break downs during after hours, week-ends and Public holidays. The Contractor must be on site after 1 hour after a phone call is made.
- All overtime worked must comply with Eskom rest period requirements
- All work to be performed will be on an as and when required basis as per Service Manager request and as per plant performance

5.3 Health and safety facilities on the Affected Property

• Proto-team on each shift
• Medical Station and relevant staff on Site.
• Each workshop has a first aid box available.
• Yearly induction for all personnel.
• In an emergency the contract supervisor and Service Manager must notified immediately

First aid centre

The Contractor provides a first aid service to his employees and Sub-Contractors. In the case where these prove to be inadequate, like in the event of a serious injury, the Employer's medical centre and facilities are available.

Outside the Employer's office hours, the Employer's first aid services are only available for serious injuries and life threatening situations.

The Employer is entitled, however, to recover the costs from the Contractor for the use of the above Employer's facilities

5.4 Environmental controls, fauna & flora

Environmental management

- Proper care of the natural environment is important to prevent nuisance and environmental degradation.
- All Contractors shall comply with Eskom environmental management procedures and Environmental legislation
- Environmental incidents shall be reported to the Eskom Environmental Department as per incident management requirements.

Waste Management

- Waste segregation is important to facilitate recycling of waste. Ensure that waste material is disposed in the correct bin.
- Eskom periodically collects waste from the bins for disposal in the correct manner.
- No waste should be burned or buried on site.
- Where Eskom and the Contractor have agreed that the Contractor is responsible for the
- Disposal of its waste, the Contractor shall safely dispose of such waste and keep disposal certificates filed.

Hazardous Substances

It is required in terms of the General Administrative Regulation (Regulation 7) of the Act that any manufacturer, importer, seller or supplier of hazardous chemical substances shall supply the receiver, free of charge with sufficient information for the user, to enable the user to introduce the necessary measures as regards the protection of the health and safety of persons. It is therefore the responsibility of the supplier (dealing directly with the Employer) to supply the information. If information is not available for whatever reason, the supplier must indicate and give reasons to the Employer

Handling of waste produced by the Contractor

All waste introduced to and/or produced on the Employer's premises, by the Contractor, for this contract, must be handled in accordance with the minimum requirements for the Handling and Disposal of Hazardous Waste in terms of Government Legislation as proclaimed by the Department of Water Affairs and Forestry Act 1994 Ref.: BN0621-16296-5. The Contractor is responsible to appoint a waste coordinator to ensure that all waste produced is handled according to the applicable legislation. The Contractor is required to ensure that all goods, services or work supplied in terms of the contract conform to all applicable environmental legislation. Where work is done on the Employer's site, the goods, services or work supplied also conforms to the Employer's environmental specifications.

Waste from the cleaning and maintenance of equipment

The Contractor is responsible to contain all waste due to cleaning and maintenance of equipment and disposes of as described below.

Stockpiling of waste

Waste is removed promptly to the designated deposit areas. No stockpiling is permitted.

Hazardous waste

Waste declared as hazardous substances in terms of the Hazardous Substances Act no 15 of 1973 is the responsibility of the Contractor to ensure safe removal from the property to a registered Class 1 site

Pest Control

Only approved herbicides with a low environmental risk shall be used for pest control.
Only registered pest controllers may apply herbicides on a commercial basis.
Application of herbicides shall be in accordance with the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act 36 of 194.

Water Conservation
Incidents related to water pollution must be reported to the Eskom environmental department within 24 hours.
Report / fix leaking taps and pipes to save water.
Use water sparingly.
Chemical substances shall not be disposed of in wastewater or storm water drains.

Air Pollution

Dust suppression measures must be in place to reduce airborne dust.
Noxious and offensive odours arising from work activities shall be adequately controlled.

Ground Pollution

Measures to prevent or control ground contamination shall be put in place e.g. drip trays, bund walls.
Spill containment, clean-up and ground rehabilitation shall be done as per Arnot's procedures

5.5 Cooperating with and obtaining acceptance of Others

This sub-paragraph could be used to deal with two issues.

- The cross reference from core clause 25.1 about cooperation generally as well as details about Others with whom the Contractor may be required to share the working areas. See clause 11.2(10) for the definition of Others.
- Requirements for liaison with and acceptance from statutory authorities or land owners.

5.6 Records of *Contractor*'s Equipment

- All equipment and tools needs to be marked and a list off all tools with the identification number to be provided to the Service Manager when entering site.
- All lost equipment and tools to be declared to the Service Manager and full details of incident.
- Contractor's equipment (Cellphones with Camera's, Computers, Camera's etc) to be declared and signed in at security.
- All test equipment must be calibrated and tested regularly and certificates must be handed in to the Service Manager for record keeping

All equipment and appliances

All equipment or appliances used by the Contractor conforms to the applicable South African Safety Standards and is maintained in safe and proper working condition. The Service Manager has the right to stop the Contractor's use of any equipment or appliance that in the Service Manager's opinion does not conform to the foregoing. The Contractor only employs skilled persons, certified in terms of the relevant acts.

5.7 Equipment provided by the *Employer*

It is the responsibility of the Contractor to provide his Equipment list to the Service Manager with all calibration certificates etc.

The Employer provides Equipment as stated in the Service Information, anything not stated in the Service Information the Contractor have to provide and already accounted for in the Price List.

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

The Employer will provide toilets, ablution facility and eating amenities on the site to which works will be done. The Contractor shall provide everything else necessary for providing the service, thus including temporary facilities to keep any hazardous chemicals and any other temporary facilities deemed necessary by the Contractor.

5.8.2 Provided by the *Contractor*

Contractor must provide transport for its employees, full protective equipment, accommodation, tools, and special tools. The personal protective equipment must have contractor's emblem for easy identification.

5.9 Control of noise, dust, water and waste

Contractor must provide proper personal protective equipment, no employee will be allowed on site without proper protective equipment overalls, gloves, hard hat, safety boots /shoes, dust mask, ear protection, heat shields, eye protection etc.

5.10 Hook ups to existing works

All hook ups to existing structure in the plant shall be on to approved lifting beams and lifting points

5.11 Tests and inspections

5.11.1 Description of tests and inspections

All sludge need to be sampled before being disposed as per waste management procedure ASEN 0008. Any other necessary test for conclusion of this *Service Information* will be discussed between *Contractor* and the *Employer.*

5.11.2 Materials facilities and samples for tests and inspections

All samples to be taken to a registered approved sampling lab and the results must be filed and shared with the *Employer* for filing.

6 List of drawings

6.1 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.

Drawing number	Revision	Title

7 Appendix A

7.1 Low Service Table

X17 Low Service Table				
ITEM	**DESRICPTION OF TASK**	**QUALITY OF PERFORMANCE**	**REASON FOR DAMAGES**	**DAMAGES TO BE IMPLEMENTED**
Waste	Delay to dispose within the 90 days	Cost of disposal will be at *Contractors* account	Environmental license impact	The *Contractor* will be charged the fee for disposal + 5% interest
Rework	Recurring work within 1 months due to poor workmanship	Cost of repair will be on contractor's account	Production	5 % of the task order value
Delays	Unavailability of equipment used for the service	Delays caused by contractor to perform dredging activities	Production	3 % of the task order