

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

Complete repair services are required at Arnot Power Station on all in-use submersible Varkie, sewage and flyght pumps. All maintenance and repairs need to be conducted in line with maintenance standards. Competent and qualified personnel are required to carry out such maintenance and repair activities

1.2 Employer's requirements for the service

- All pumps to be cleaned properly, shot blasting are preferred.
- The Supplier shall repair all submersible pumps covered on the following plant, Water plant, SED plant South, Slurry, Trench, Terrace, Sewage, Raw sewage A & B, maturation pond 3, AWR, seepage, AWR pump house, Schoomans dam, Recovery A & B, Station drains, Ash plant, pump side, Coal staith 4 and 5
- Removal of the windings is to be carried out strictly in accordance with SABS specifications (only burn out oven to be used).
- Method of varnishing is to be double dipped and bake.
- Paint work is to be done as per SABS 064 for the type of paint and method of application
 - Spray paint pump with (Dark Admiralty Grey SANS 1091 G12).
- Shaft journals, which are to be micro welded and where new shafts are to be provided shall be in accordance with SABS 0242
- Terminal leads must be clearly marked and of a reasonable length to enable connections to be carried out
- Ensure that stators removed from the casing are replaced in the original position
- Normal: Item in normal production line delivery within 14 working days, if delivery cannot be done in 14 days Service Manager to be notified.
- Supply of new submersible /flyght pumps
 - The contractor shall notify the *Service Manager* when it is no longer viable to repair a submersible pump, proof of the above to be supplied. The *Service Manager* will notify the contractor in writing if a submersible pump must be supplied. Where the repair cost exceeds 70 % of the cost of a submersible pump the Eskom representative is to be notified, upon which approval will be given to either continue with such repairs or supply a new replica. Where a replica is not available approval shall also be obtained from the *Service Manager* for the supply of a different type.
- The correct PPE must be worn when performing work.
- Pump stator rewind/bake depending on the scope given and failure report
- Fit new drive end bearing (DE)
- Fit new drive non end bearing (NDE)
- Fit new O-ring
- Fit new upper and lower seals
- Replace suction cover if damaged
- Replace impeller if damaged
- Replace or repair damaged cable terminal boxes
- Replace 15metre cable
- Recast cable with resin
- Test pump into water and let it run for about 20 minutes while monitoring amps and pressure
- Spray paint pump with Dark Admiralty Grey SANS 1091 G12)
- Signed off quality control report/ checklist

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

| Abbreviation | Meaning given to the abbreviation |
|--------------|-----------------------------------|
| OBL | Outside battery limits |
| DE | Drive End |
| NDE | Non-Drive End |
| QCP | Quality Control Plan |
| QC | Quality Controller |
| LV | Low Voltage |
| OBL | Outside Battery Limits |
| AC | Alternating Current |
| PPE | Personal Protective Equipment |

2 Management strategy and start up.

2.1 The Contractor's plan for the service

A program will only be needed on request by the Service Manager, upon which the details of the program will be decided on.

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: |
|--|--|-------------------------|---|
| Overall contract progress and feedback | As and when required to be agreed by both parties. | As agreed when required | <i>Employer representative and supplier</i> |

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: |
|--|---|--|--------------------------------|
| Overall contract progress and feedback | Quarterly on the 2 nd week of that month | Arnot Power Station / Supplier's offices | <i>Employer and Contractor</i> |

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

The contractor shall submit to the *Service Manager* an organogram showing his people and their lines of authority / communication, in his organisation relevant to the refurbishment of submersible pumps

2.4 Documentation control

All contractual communications will be in the form of properly compiled letters or forms attached to e mails

Any communication pertaining to the contract shall be between the contractor and the Service Manager and/or his delegate.

2.5 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

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)

2.6 Contract change management

Not applicable.

2.7 Records of Defined Cost to be kept by the Contractor

Option A is applicable to this contract and no records of defined costs are required by the contractor.

2.8 Insurance provided by the Employer

Insurance provided by the Employer is stipulated under data provided by the Employer.

2.9 Training workshops and technology transfer

Updated and new technology used by the supplier for refurbishment submersible pumps may be shared with the employer on an ad-hoc basis.

2.10 Design and supply of Equipment

Refurbishment methods and activities to all submersible pumps shall be so that the original specifications are maintained.

2.11 Things provided at the end of the service period for the Employer's use

2.11.1 Equipment

None

2.11.2 Information and other things

None required.

2.12 Management of work done by Task Order

A task order for each item to be refurbished will be issued to the supplier upon collection of such item. The task order will stipulate work to be done on the relevant item. The task order format is the employer breakdown report

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

- Control of noise is through wearing hearing protection
- Dust, dust suppression or as the last resort issue dust mask
- Waste, put waste in the correct waste bin
- Water to be conserve, use as little as possible
- Adhere to all Eskom life saving rules

The *Contractor* shall comply with the health and safety requirements stated to this Service Information.

A. Road Safety

- a. Speed limit: 40km/h
- b. By passing Speed humps not allowed
- c. Transporting People at the back of the bakkie is not allowed
- d. Buckle up always
- e. Park only at demarcated areas

B. Sanitation

- a. Toilets for both gender are available at the plant

C. Emergency

- a. The emergency number for Arnot is 013 297 9184 Pax:5184
- b. Proto team is available for any type of emergencies
- c. Emergency alarm are tested every Wednesday 10H00

D. Access

- a. Before access can be grated the following must be met:
 - i. Safety file checked and approved
 - ii. SHE Induction attended

The contractor shall comply with the latest version of Occupational Health and Safety Act No. 85 of 1993 and Eskom Health and Safety policy, procedures, specifications and guidelines.

Compliance to 5 identified lifesaving rules (Compulsory Adherence):

Rule1: Open, Isolate, Test, Earth, Bond, and/or Insulate before touch

(That is, any plant operating above 1 000 V)

No person may work on any electrical network unless:

- He/she is trained and authorised as competent for the task to be done;
- A pre-task risk assessment to identify all risks and hazards has been conducted prior to any work commencing;
- An equipotential zone is created for each worker on the job site by earthing, bonding, and/or insulating according to approved procedures;
- All conducting material is connected together, all staff on site wear electrical safety shoes, and insulating techniques are applied according to standards; and
- The authorised person (team leader) has certified and shown all team members that the apparatus is safe to work on.

Rule 2: Hook up on heights

Working at height is defined as any work performed above a stable work surface or where a person puts himself/herself in a position where he/she exposes himself/herself to a fall from or into.

No person may work at height where there is a risk of falling unless:

- A pre-task risk assessment to identify all risks and hazards has been conducted prior to commencing any work at height;
- He/she is appropriately trained;
- He/she is appropriately secured during ascending and descending; and
- He/she is using an approved fall arrest system where applicable.

Rule 3: Buckle up

No person may drive any vehicle on Eskom business and/or on Eskom premises:

- Unless the driver and all passengers are wearing seat belts.

Rule 4: Be Sober

No person is allowed to work under the influence of drugs and alcohol.

"Under the influence" means the use of alcohol, drugs, and/or a controlled substance to the extent that:

- His individual faculties are in any way impaired by the consumption or use of the substances; or
- The individual is unable to perform in a safe, productive manner; or
- The individual has a level of any such substance in his/her body that corresponds to or exceeds accepted medical/legal standards; or
- The individual has a level of alcohol in his/her body that is greater than 0% blood alcohol concentration.

This includes any level of an illegal substance in the body, irrespective of when the substance was used.

Rule 5: Ensure that you have a permit to work

Where an authorisation limitation exists, no person shall work without the required Permit to Work (PTW), which is governed by the Plant Safety Regulations, Operating Regulations for High Voltage Systems (ORHVS) etc.

- No plant is to be returned to service without the cancellation of all permits on that plant in accordance with procedure.

NB: in the case of live work, a "live work declaration form" is to be completed by the authorised person who is the person responsible for the safe execution of work according to relevant standards and procedures.

Please ensure that these rules are understood and communicated with the urgency that they deserve. If any of these rules are unclear or the consequences not understood, please do not hesitate to discuss it with Eskom.

We would like to continue our current partnership and therefore urge your support in the implementation and upholding of these rules.

The supplier to be awarded the contract will be expected to comply with the latest version of Occupational Health and Safety Act No. 85 of 1993 and Eskom Health and Safety policy, procedures, specifications and guidelines.

The *Contractor* shall comply with the health and safety requirements contained in 3.1 above to this Service Information.

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

3.2 Environmental constraints and management

Supplier shall comply with legal and other requirement to which Arnot Power prescribes to and other Eskom Holdings SOC Limited's Standards and specifications

The Contractor/supplier shall ensure that the activities to be conducted shall comply with all applicable environmental legislation this includes section 24 of Constitution of South Africa 108 Of 1996, National Environmental Act 107 of 1998 and other relevant Environmental Legislation.

The Contractor/supplier shall conform to the station Environmental Management System (ISO 14001:2015) and applicable procedures.

This includes the following:

- The Eskom's SHEQ Policy (32-727)
- Emergency Preparedness Procedure
- Waste Management Procedure

And other station Environmental Management System procedure

The Contractor shall comply with the environmental criteria and constraints stated in 3.2 above.

3.3 Quality assurance requirements

3.3.1 Quality documents submitted after the contract date

The *Contractor* submits a fully detailed Quality Assurance Programme (QAP) for acceptance by the *Service Manager* within four weeks of the *Contract Date*.

The documents submitted by the *Contractor* shall include the following:

- Copy of the Quality Manual
- Copy of the Quality System Procedure
- Copy of the Contract Quality Management Plan
- Copy of Quality Control Plans
- Copy of the proposed index of the QA/QC, inspection and test records

The *Contractor* will further submit the following documents during the course of the contract:

- Non-conformance reports (NCR's) raised by the *Contractor*
- Notification of any planned changes to the *Contractor's* quality manual, quality system procedures, contract quality management plan or quality plan for acceptance by the *Service Manager* prior to implementation
- Concession/production permit applications and supporting documentation
- Data books and/or data packages

3.3.2 Contract quality management plan requirement

The *Contractor* prepares a contract quality management plan that, where appropriate, indicates the following:

- Indicates the interface with the *Contractors* quality system and applicable documents such as procedures and work instructions
- Establishes communication channels between the *Contractor* and the *Service Manager* in respect of quality and the integration of such with the prescribed contract communication channels
- Indicates how specific subcontractors will be monitored
- Identifies items or activities for which quality control plans will be prepared
- Identifies the specifications, drawings and acceptance criteria for material for which quality control plans are not required
- Identifies the areas or processes requiring special controls
- Identifies the *Contractor's* Management Representative and personnel responsible for the control of quality activities and their relationship to the *Contractor's* management structure
- Identifies the documents which are to be submitted to the Service Manager
- Indicates the *Contractor's* quality monitoring programme

The *Contractor* periodically updates the contract quality management plan to reflect changes in any of the above details. The frequency of such updates is determined by the Service Manager but will not be greater than one year.

3.3.3 Quality control plan

The Contractor quality control plans cover inspection and test proposals for items or activities to be supplied as part of the works.

The quality control plan indicates the following as appropriate:

- ☐ The identification of the item
- ☐ The material
- ☐ A list of the sequence of operations including inspections and tests
- ☐ The identification of the specification, drawings or procedures for each operation
- ☐ The acceptance criteria with reference to the appropriate technical specification, in-house, national or international standard and relevant clause number
- ☐ The inspections and tests the Contractor has nominated for hold and witness points and it is shown in the Accepted Programme.
- ☐ During contract execution no actions to provide the Works are implemented at any of the working areas before the relevant quality control plans and procedures are accepted by the Service Manager.
- ☐ Proof of the Contractor's personnel competence in terms of Reg 18 (5 and 6) of the OHS Act is submitted to the Service Manager for acceptance prior to the commencement of any work on Site and is shown in the Accepted Programme.

Quality control plans with hold and witness points are supplied to the Service Manager for his review and acceptance 15 days before the start of each of the following phases and or stages and it is shown in the Accepted Programme:

- i. Investigation phase
- ii. Design and engineering phase
 - ☐ Technical clarification stage.
 - ☐ Design freeze stage
- iii. Production engineering phase
 - ☐ Procurement, fabrication and delivery stage.
- iv. Construction and erection phase.
- v. Commissioning phase
 - ☐ Commissioning stage.
- vi. Operational test phase.

4 Procurement

Procurement of any material requirements, other than those as specified in the price list, will only be done by the contract supervisor upon approval of the Service Manager.

4.1 People

4.1.1 Minimum requirements of people employed

All personnel employed by the contractor to provide the service required shall be suitably qualified in the relevant fields to produce such service.

4.1.2 BBBEE and preferencing scheme

Specify constraints which *Contractor* must comply with after contract award in regard to any Broad Based Black Economic Empowerment (B-BBEE) or preferencing scheme measures.

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

If the ASGI-SA requirements are to be included in this contract specify constraints which *Contractor* must comply with after contract award in regard to any ASGI-SA requirements. The ASGI-SA Compliance Schedule completed in the returnable tender schedules is reproduced here. If ASGI-SA does not apply, delete this paragraph.

The *Contractor* complies with and fulfils the *Contractor's* obligations in respect of the Accelerated and Shared Growth Initiative - South Africa in accordance with and as provided for in the *Contractor's* ASGI-SA Compliance Schedule stated below

[Insert the agreed ASGI-SA Compliance Schedule here]

The *Contractor* shall keep accurate records and provide the *Service Manager* with reports on the *Contractor's* actual delivery against the above stated ASGI-SA criteria. [Elaborate on access to and format of records and frequency of submission etc.]

The *Contractor's* failure to comply with his ASGI-SA obligations constitutes substantial failure on the part of the *Contractor* to comply with his obligations under this contract.

4.2 Subcontracting

4.2.1 Preferred subcontractors

TSC3 does not make use of nominated subcontracting, but the *Employer* may list which subcontractors or suppliers the *Contractor* is required to enter into subcontracts with. This is usually only required where specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards.

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Specify any constraints on how the *Contractor* is to prepare subcontract documentation, whether use of the NEC system is compulsory or not (compulsory is recommended) and how subcontract tenders are to be issued, received, assessed (using a joint report?) and awarded.

4.2.3 Limitations on subcontracting

The *Employer* may require that the *Contractor* must subcontract certain specialised work, or that the *Contractor* shall not subcontract more than a specified proportion of the whole of the contract.

4.2.4 Attendance on subcontractors

State requirements for attendance on Subcontractors, if any

4.3 Plant and Materials**4.3.1 Specifications**

| Title | Date or revision | Tick if publicly available |
|-------------------------|------------------|----------------------------|
| SABS 1561/1 OF 1992 | | √ |
| SABS 0242 OF 1992 | | √ |
| SABS 064 (PAINTING) | | √ |
| SABS ISO 9002 (QUALITY) | | √ |
| SABS ISO 1940/1 | | √ |
| NSW 1551 | | √ |
| | | |

All spares and material used must be original.

Only SKF, FAG, RHP or NSK bearings to be used.

Lubrication of bearings: only Shell Alvania R2, R3, or BP to be used

4.3.2 Correction of defects

As per scope of work.

4.3.3 *Contractor's* procurement of Plant and Materials

Procurement other than as per price list shall be cleared with the Service manager

4.3.4 Tests and inspections before delivery

Testing will be done on the contractor site, before delivery to Arnot Power Station

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

Not applicable.

4.3.6 Cataloguing requirements by the *Contractor*

Not applicable.

5 Working on the Affected Property

All safety requirements, regulatory requirements and Arnot procedures shall be complied with where any work requirements are done on site at Arnot

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

The contractor shall be obliged to abide by all security arrangements and site regulations in force as from time to time at Arnot power station.

The contractor shall similarly ensure that his staff abides by such arrangements and regulations.

The head of Security at Arnot power station Site, may for any reason deny access, whether temporary or permanent to any member of the contractor's staff in what event, the contractor shall immediately replace such person with another, acceptable to the head of security

Loading and off-loading of motors will only be done during normal working hours, except in emergencies and pre-arrangements have been made.

Eskom will not be liable for the incorrect loading of pumps onto any vehicle. A formal procedure is available from the Service manager

5.2 People restrictions, hours of work, conduct and records

Emergency work may be required to be done after normal working hours

For emergency / breakdown basis: Delivery will be required within 72 hours.

Urgent work requirements: priority to be given in favour of such items over all other work for Arnot

5.3 Health and safety facilities on the Affected Property

First aid facilities are available on site for minor incidents.

5.4 Environmental controls, fauna & flora

Not applicable.

5.5 Cooperating with and obtaining acceptance of Others

Not applicable.

5.6 Records of *Contractor's* Equipment

Not applicable

5.7 Equipment provided by the *Employer*

A rigger with all necessary rigging equipment will be available for the off-loading of the pumps at Arnot Power Station

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

Loading and off-loading facilities are provided.

The contractor shall provide everything else necessary for providing the service.

5.8.2 Provided by the *Contractor*

As described in the scope of work.

5.9 Control of noise, dust, water and waste

Correct PPE to be worn at all times

5.10 Hook ups to existing works

Not applicable

5.11 Tests and inspections

5.11.1 Description of tests and inspections

As described in quality assurance.

5.11.2 Materials facilities and samples for tests and inspections

None required.

6 List of drawings

6.1 Drawings issued by the *Employer*

None