

PART 3: SCOPE OF WORK

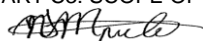
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C3.1: EMPLOYER’S SERVICE INFORMATION

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1 Description of the service

1.1 Executive overview

- Conduct PM correlation test on the North (U1 – 3) and South stack (U4-6). Tests to be conducted by the Contractor who has SANAS accredited laboratory.
- Conduct QAL2/parallel test on gas monitor on the North and South stack. Tests to be conducted by the Contractor who has SANAS accredited laboratory.

1.2 Employer's requirements for the service

1.2.1 Conduct the particulates matter correlation test

- Correlation tests are supposed to be conducted within 24 months as per MES. Refer to Table 1 for expiry dates.
- Conduct the particulates isokinetic test as per 240-56242363 Emission monitoring and reporting and MES approved listed standards on the stack. On daily basis as the test progresses, issue the preliminary results of emission levels that were measured.
- The internal diameter of the stack is 15 m. The Contractor to ensure that they have necessary equipment to measure this diameter and to support the probe on the stack. There are four test ports on each stack.
- Use quartz thimbles
- Issue the report within 3 weeks after the test.
- On the report, in addition to the detailed test results table, the Contractor must issue the correlation regression curve in %. The monitor measures in 4 – 20 mA, however the signal on our DCS is displayed on range of 0 – 100%.
- The gas to airflow curves shall also be unitised.
- Sign the LAR and key for the stack lift at the control room. Sign back the key after completion on daily basis.
- The Contractor shall test for and measure the PM 10 and PM 2.6 particle sizes. The particle size distribution shall be included in the report.
- Tests need to be completed at least three months prior the expiry date.
- The contractor shall have the valid certificates to operate the lift from 0 – 90 meter level. If not arrange training with Alimak who is the lift manufacturer.
- The cat ladder is available for access as well in case the lift is unavailable.

1.2.2 Conduct QAL2/Parallel tests

- Conduct the QAL 2 tests as per 240-56242363 Emission monitoring and reporting and MES approved listed standards on the stack. Refer to Table 1 for expiry dates.
- Gases to be measured continuously by the supplier are H₂O O₂, SO₂, CO, CO₂ and NO and NO₂. Provide an additional total NO_x curve represented as NO₂ (NO+NO₂).
- The report shall include regression curves derived as per relevant standard for the above mentioned gas constituents.
- Confirm the sampling port and best average sampling point with the system engineer prior to testing.
- Sign the LAR and key for the stack lift at the control room. Sign back the key after completion on daily basis.
- Issue the report within 3 weeks after the test. The report should be separate from the particulates report.
- Tests need to be completed at least three months prior the expiry date of the previous test.
- The Contractor shall have the valid certificates to operate the lift from 0 – 90 meter level. If not arrange training with Alimak who are the lift manufacturers.
- The cat ladder is available for access as well in case the lift is unavailable.

Table 1: Expiry dates for Correlation and QAL2/Parallel tests

	North stack		South stack	
	Date when the test was completed	Current expiry date	Date when the test was completed	Current expiry date
Particulates Correlation test	2021/12/16	2023/12/16	2021/05/18	2023/05/18
QAL 2 - Parallel	2021/05/11	2023/05/11	2020/10/25	2022/10/25

The Contractor to confirm adherence to the dates on contract award.

1.2.3 Stratification tests

- Stratification tests shall only be done on request if there a need arising.
- There are four ports on each stack.
- Sign the LAR and key for the stack lift at the control room. Sign back the key after completion on daily basis.
- Issue the report within 3 weeks after the test. The report shall indicate the best sampling average point to be used.

1.3 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
MES	Minimum Emission Standard
LAR	Limited Access Register
QAL2	Quality Assurance Level

2 Management strategy and start up.

2.1 The Contractor's plan for the service

Program for any test to be done shall be sent to the Service Manager four weeks to six weeks before the test.

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	As and when required	MS teams or Arnot Power Station	<i>Employer, Contractor and Service Manager</i>
Overall contract progress and feedback	As and when required	MS teams or Arnot Power Station	<i>Employer, Contractor and Service Manager</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*, the names of the test team indicating the co-ordinator and test team members and their roles.

2.4 Provision of bonds and guarantees

Not applicable

2.5 Documentation control

Every report shall entail the task order number. Messages on emails are acceptable as form of communication.

2.6 Invoicing and payment

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)

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

2.7 Contract change management

Any changes or requirements will be discussed and agreed by both *Employer* and *Contractor* in writing before implementation

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

The *Contractor* shall keep records of standing time, extra test days and reasons thereof. Records to be sent to the *Service Manager* within two weeks after effect.

2.9 Insurance provided by the *Employer*

Not applicable

2.10 Training workshops and technology transfer

Not applicable

2.11 Design and supply of Equipment

Not applicable

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

2.12.1 Equipment

None

2.12.2 Information and other things

None

2.13 Management of work done by Task Order

- The *Employer* shall provide the applicable specifications as per the description on the price data. Additional work instruction might be issued where required for each task order.
- *Contractor* shall respond to emergencies whenever required by the *Employer*.

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 SHE specification.

Baseline risk assessment is attached below.

List activity	Activity type (Routine/Non-routine)	Hazard nr	Hazard Identification	Risk Nr	Associated risk	Risk type	Cause(s) of the risk	Exposed group/employees	Risk Owner	Exposure patterns	What are the possible consequences?	Existing Controls
List specific activities to be performed taking into consideration the equipment to be used, the personnel involved in the task.	Indicate R or N 1. Routine activities and situations create hazards through day-to-day operations and normal work activities; 2. Non-routine activities and situations are occasional or unplanned;	#	Anything with potential to cause of harm. Note: A hazard can pose more than one risk.	#	A chance that injury, ill health or damage could occur as a result of uncontrolled hazard.	Safety or health	What causes the risk to come into effect?	Who is exposed to the hazard i.e. visitors, members of the public, etc.	Who is accountable for making sure the controls and monitors are: - in place, - implemented, - regularly reviewed for effectiveness.	The frequency and duration the person/group is exposed to the hazard e.g. Daily for 3 hrs.	Consider the worse case scenario without controls?	Include: - <u>Preventative Controls</u> (controls implemented to eliminate hazards or reduce the likelihood of the risk occurring), and - <u>Reactive Controls</u> (controls implemented to reduce the immediate impact of the risk occurring) <u>Elimination</u> <u>Substitution</u> <u>Engineering controls</u> <u>Administrative controls</u>
Conducting correlation and parallel test	N	1	Ascending the staircase from 1 to 90 m level platform		Fall from the stepladder whilst ascending if the lift is not available.	Health	Slipping of the feet	Contractors Employees	Contractor and Contract manager	1 hour for 5 days	Injury	Use the safety harness
Conducting correlation and parallel test	N	2	Working at heights (90 m level)		Fall from the platform	Health	Fall from the platform	Contractors Employees	Contractor and Contract manager	6 - 9 hours for 5 days	Injury	The platform has handrails at 90 m level
Driving on public roads to work site	N	3	Driving		Vehicle collision, hijacking, potholes	Safety	Not paying attention, risk assessment not done, not familiar with the road, making use of cell phone, distractions, exposed to unsafe behaviours, congested roads, pedestrians and live stock, taxi and trucks on the road, civil unrest, fatigue of drivers, weather condition (rain, mist) Road conditions (potholes)	Contractors Employees	Contractor and Contract manager	2 hours for 5 days	Injuries, fatalities, property damage	Staff driving vehicles to have valid national driver's license and defensive driving technique training Vehicle roadworthy condition Pre-trip checks Obeying all traffic rules Life saving rules to be complied to (wearing safety belts, be sober)
Coming through to work onsite	N	3	Covid-19		Getting infected	Health	Not wearing mask, No social distancing, Not sanitising Touching unsanitised surfaces	Contractors Employees	Contractor and Contract manager	9 hours for 5 days	Fatality	Wearing masks (PPE), Social distancing, Sanitising Minimizing employees at work Temperature screening Tracking App Make use of MS Teams to avoid boardroom meetings Covid-19 Awareness communication from GM at Power Station as well as CEO offices Quarantine and isolation when infected or in contact with positive person Awareness training Deep cleaning of offices

3.2 Environmental constraints and management

Should there be any waste in the process, the *Contractor* need to understand that the *Employer* is committed to sustainable development and will actively work to reduce the impact on the natural environment resulting from the power generation process.

We commit to continual improvement in our performance and aspire to minimum harm to people and the environment

- **Whenever we conduct our business, we will:**
 - L : Legal compliance
 - I : Improve continuously
 - M: Management of natural resources
 - P: Prevention of pollution

- **Refuse Disposal**

The *Contractor* is responsible to keep the work area clean of any rubble.

All waste introduced and/or produced on the *Employer's* premises by the *Contractor* for this contract, is handled in accordance with National Management Waste Act No. 59 of 2008.

The *Employer* provides colour coded bins for refuse disposal.

The *Employer* empties these bins.

Contractor keeps the work area clean of any rubble, and disposes all refuse into the bins provided.

The *Contractor* ensures that all workers under his control strictly adhere to the correct use of refuse bins:

Blue bins: - Scrap metal only

White bins: - Lagging and general household rubbish

Red bins: - Oil contaminated waste

Blue and green drums - Waste grease

3.3 Quality assurance requirements

The *Contractor* supplies QCP for the scope at least one week prior to the work commencing. The QCP will have all the activities to ensure quality of the work to be undertaken.

4 Procurement

There is a cross reference from the core clause 11.2(6) definition of Disallowed Cost to the Service Information regarding procurement procedures. This part of the Service Information MUST include any such procedures to be able to administer Disallowed Cost.

4.1 People

4.1.1 Minimum requirements of people employed

Specify any constraints relating to people employed to Provide the Service; for example permits for foreigners, training (other than H & S), use of labour from designated areas and industrial relations.

Labourers within the Arnot community shall be recruited. Stakeholder management to be consulted for this purpose.

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.

In the contract period, the *Contractor* shall develop at least one general labourer to the level A assistant within 3 years. Proof shall be submitted to the *Service Manager*. – still to be discussed with SDL

In the contract period, the *Contractor* shall develop at least one Level A assistant to Level 1 team member within 5 years. Proof shall be submitted to the *Service Manager*.

See the description/what is expected of Level A assistant and Level 1 team member below.

Level A: Assistant

This is for individuals who are new entrants into the field with little or no experience.

Applicants are required to have a basic safety qualification to allow introduction to and training in the field of emission testing.

Level 1: Team Member

This is for individuals who meet all the requirements for Level 1 certification and are actively involved in measurements as a team member.

Individuals should provide evidence of:

- Basic scientific and method understanding confirmed by evidence of successfully completed written tests (available online on the NLA-SA website).
- Basic understanding of legal framework for emission testing.
- Experience demonstrated through log book presentation using the template available.
- Independent review by a technical expert

4.2 Subcontracting

4.2.1 Preferred subcontractors

Not applicable

4.2.2 Subcontract documentation, and assessment of subcontract tenders

Not applicable

4.2.3 Limitations on subcontracting

If sub-contracting is required in certain instances, it should be cleared and agreed to by the *Service* manager. It is to be noted that the main contractor will be fully accountable for the service rendered by the subcontractor.

4.2.4 Attendance on subcontractors

Not applicable

4.3 Plant and Materials

4.3.1 Specifications

Not applicable

4.3.2 Correction of defects

Not applicable

4.3.3 Contractor's procurement of Plant and Materials

Not applicable

4.3.4 Tests and inspections before delivery

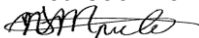
Not applicable

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

None

4.3.6 Cataloguing requirements by the *Contractor*

Not applicable



5 Working on the Affected Property

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

- *Contractor* must attend induction before entering premises which is valid for a year from the issued date.
- *Contractor* must make pre-arrangements before coming to *Employer's* site to allow *Employer* to make proper arrangements with Security. If no arrangements made, no access will be granted to the *Contractor*.

5.2 People restrictions, hours of work, conduct and records

Low load tests shall be done during weekends due to load demand.

5.3 Health and safety facilities on the Affected Property

In case of injuries whilst on site, the *Employer* has a Medical centre to assist with first aid related 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

Records of equipment shall be kept by the *Contractor* in the safety file.

5.7 Equipment provided by the *Employer*

None

5.8 Site services and facilities

5.8.1 Provided by the *Employer*

Employer will provide in the way of power, water, waste disposal, ablutions on the affected Property. The *Contractor* shall provide everything else necessary for Providing the Service.

5.8.2 Provided by the *Contractor*

Not applicable

5.9 Control of noise, dust, water and waste

Not applicable

5.10 Hook ups to existing works

Weather, plant unavailability

5.11 Tests and inspections

5.11.1 Description of tests and inspections

Not applicable

5.11.2 Materials facilities and samples for tests and inspections

Not applicable

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
26.41/24437	2	NORTH CHIMNEY ELEC.SCHEM.DIA.FOR SUPPLIES TO OPACIMETER, LIFT, LIGHTS, ALARM/DECORDER UNIT & CHART RECORDER
26.41/24414/001	1	NORTH STACK GENERAL ARRANGEMENT ON ACCESS PLATFORMS
26.41/38301/001	3	CHIMNEY ACCESS NORTH CHIMNEY 1 AND SOUTH CHIMNEY 2 GENERAL LAYOUT AND CAT LADDER DETAIL

