Eskom	Scope of Work	Arnot Power Station

Title: **Arnot Power Station - Compressor Plant Maintenance scope**

Document Identifier:	**AEAP 0131**
Alternative Reference Number:	
Area of Applicability:	**Eskom Holdings SOC Ltd**
Functional Area:	**Engineering**
Revision:	**1**
Total Pages:	**17**
Next Review Date:	**N/A**
Disclosure Classification:	**Controlled Disclosure**

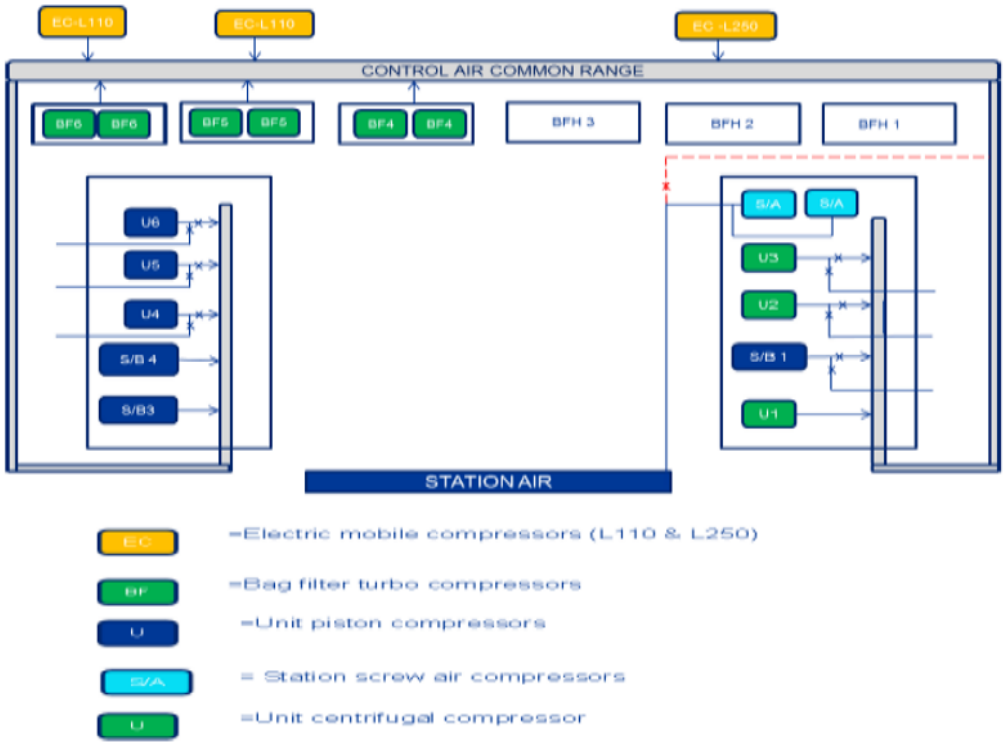
Compiled by:	Reviewed by	Functional Responsibility	Authorized by	Accepted by
C Lentsoe **Aux Engineering System Engineer**	**A Rivele** **Aux Eng Senior Advisor**	**RC Mosehla** **Aux Engineering Manager**	**T Mokgatle** **Engineering Manager**	**Moses Mathaba** **AUX-Maintenance Manager**
.....	.....	pp	.....	.....
Date: 2025/06/18	**Date:** 2025/06/18	**Date:** 2025/06/19	**Date** 2025/06/25	**Date.** 26/06/2025

TABLE OF CONTENTS

1. Introduction:

The Arnot Power Station compressor system is designed with twenty-seven (27) air compressors to maintain a constant system pressure of 620 kPa, providing both instrumentation air and service air for pneumatic tools. These compressors can be interconnected to feed a common manifold, enabling flexible distribution of control air to the respective units as needed.This scope of work defines the responsibilities, scope, and requirements for Baofn compressors pty ltd to undertake comprehensive maintenance of the entire compressor plant at Arnot Power Station over a four-year period. The objective is to ensure maximum compressor availability, reliability, and efficiency, while adhering to safety and operational standards.

This document outlines the four-year maintenance strategy and service plan for the Control and Station Air Systems at Arnot Power Station. These systems are critical for the reliable supply of instrument-grade and general compressed air to Units 1 through 6. Their performance is essential for the safe and continuous operation of the plant.



1. Objectives
The scope is an all-inclusive maintenance agreement where the *Contractor* will maintain the compressor trains from daily inspection2, 3 monthly, 6 monthly and 12 monthly routine services, repairs, day to day frontline maintenance, minor and major repairs, and overhauls. The *contractor* will be required to have trained artisans/technicians on site to cover the daily front line and routine maintenance, call outs, fault finding and the specialised technicians for the servicing, maintenance and overhauling of the two types of compressors and related equipment.

A permanent qualified artisan/technician is required on site to monitor, do day to day frontline maintenance, fault finding and maintain the compressors to ensure compressor availability and reliability. The *Contractor* will be required to ensure that the artisan/technician is available for breakdowns after hours and weekends including public holidays to address any defect or problem on the compressors as they arise. Specialised work to be done as per schedule or breakdown by the trained and qualified technicians as the work arises or where the specialised technical expertise is required.

The Contract is not limited to a maintenance agreement only but also including the procurement, installation and commissioning of compressors, driers, cooling towers, control, and condition monitoring system or equipment thereof when required, ensuring the availability and reliability for the Compressed Air Plants.

The *Contractor* is required to compile a service and maintenance schedule, breakdowns and maintenance requirements of the compressors and as listed in the Pricing Schedule.

The *Contractor to* always take reasonable care to protect the Compressed Air Plant and all items on site, belonging to the *Employer* from damage while providing the *Service.*

Corrective Maintenance: Unscheduled or scheduled repairs to correct deficiencies.

Preventative maintenance: Scheduled servicing, repairs, inspections, adjustments and replacement of parts that result in fewer breakdowns and fewer premature replacements and achieve the expected life of compressors and related plant.

Recurring maintenance: Preventative maintenance activities that recur on a periodic and scheduled cycle with a frequency of 1 year but less than 10 years.

Emergency maintenance: Maintenance activities that are unscheduled repair, to include call outs, to correct an emergency to prevent injury, loss of property, or return asset to service. These repairs are initiated within a very short time period from which the need is identified and usually within hours.

- Ensure continuous, reliable supply of control and station air with ≥92% availability.
- Maintain all compressor and auxiliary equipment within performance specifications.
- Minimize unplanned downtime through proactive maintenance and rapid fault resolution.
- Manage spare parts inventory effectively for both scheduled and urgent repairs.
- Comply with safety, environmental, and Eskom standards and policies.

2. Compressor and Auxiliary Equipment Scope

The scope includes all compressors and auxiliary systems essential for reliable operation of Control and Station Air Systems. Equipment is located across the North and South plants, Final Feed Pump (FFP) areas, external or standby units, fire protection systems, and water plant compressors.

The *works* describe the **"Maintenance"** requirements on the control air and station air system. All auxiliaries related to the compressors are applicable to the contract, the auxiliaries inclusive of the pipework, valves, gauges, control panels, solenoids, all related measuring devices, vessels, cooling towers, heatless absorption desiccant dryers, water cyclonic separators, general purpose protection particulate filters, high efficiency oil removal coalescing filters, bag-filter house forced draught cooling fans, ducting's, filters and condensate drains.

Installed capacity

Located At	Type	Known As	Nominal Flow rate	Power supply	Power Rating	DCS Location
North comp. house	Centrifugal (TA2000)	U1 Control Air	32 m^3/min (1100 cfm)	380V Boiler board 1B	186.425kW	Unit DCS
North comp. house	Centrifugal (TA2000)	U2 Control Air	32 m^3/min (1100 cfm)	380V Boiler board 2B	186.425kW	Unit DCS
North comp. house	Centrifugal (TA2000)	U3 Control Air	32 m^3/min (1100 cfm)	380V Boiler board 3B	186.425kW	Unit DCS
South comp. house	Screw Comp. L55	U4 Control Air	10.67 m^3/min (376 cfm)	380V Boiler board 4B	75 kW	Unit DCS
South comp. house	Screw Comp. L75	U5 Control Air	13.72 m^3/min (484 cfm)	380V Boiler board 5B	75 kW	Unit DCS
South comp. house	Screw Comp. L55	U6 Control Air	10.67 m^3/min (376 cfm)	380V Boiler board 6B	41 kW	Unit DCS
North comp. house	Screw Comp. L250	Station Air 1 (service air)	42 m^3/min (1483 cfm)	Substation board 1A	250kW	Physical Monitoring

North comp. house	Screw Comp. L250	Station Air 2 (Service air)	42 m^3/min (1483 cfm)	Substation board 2A	250kW	Physical Monitoring
North comp. house	Screw Comp. L132	Standby 1	24.71 m^3/min (872 cfm)	Substation board 1A	186.425kW	EOD
North comp. house	Screw Comp. L160	Standby 2	32.06 m^3/min (1135 cfm)	Unit 2 Boiler board	186.425kW	Physical Monitoring
South comp. house	Screw Comp. L55	Standby 3	10.67 m^3/min (376 cfm)	Substation board 1B	75 kW	EOD
South comp. house	Screw Comp. L55	Standby 4	10.67 m^3/min (376 cfm)	Substation board 2B	75 kW	EOD
Outside FFP area unit 2	Screw Comp. L250	Standby 5	42 m^3/min (1483 cfm)	380V GO board 3B	110 kW	Physical Monitoring
Outside FFP area unit 5	Screw Comp. L110	Standby 6	21.58 m^3/min (764 cfm)	380V GO board 5B	110kW	Physical Monitoring
Outside FFP area unit 6	Screw Comp. L110	Standby 7	21.58 m^3/min (764 cfm)	380V GO board 5B	250kW	Physical Monitoring
FFP unit 4 comp. house	Centrifugal (TA2000)	FFP 4A	32 m^3/min (1100 cfm)	380V boiler board 4B	186.425kW	Unit DCS
FFP unit 4 comp. house	Centrifugal (TA2000)	FFP 4B	32 m^3/min (1100 cfm)	380V boiler board 4B	186.425kW	Unit DCS
FFP unit 5 comp. house	Centrifugal (TA2000)	FFP 5A	32 m^3/min (1100 cfm)	380V boiler board 5B	186.425kW	Unit DCS

FFP unit 5 comp. house	Centrifugal (TA2000)	FFP 5B	32 m^3/min (1100 cfm)	380V boiler board 5B	186.425kW	Unit DCS
FFP unit 6 comp. house	Centrifugal (TA2000)	FFP 6A	32 m^3/min (1100 cfm)	380V boiler board 6B	186.425kW	Unit DCS
FFP unit 6 comp. house	Centrifugal (TA2000)	FFP 6B	32 m^3/min; (1100 cfm)	380V boiler board 6B	186.425kW	Unit DCS
Emulsifier	L75 (Screw)	Unit-3 fire system	13.72 m^3/min (484 cfm)	-	75 KW	Physical Monitoring
Water Plant	L75 (Screw)	North & South	13.72 m^3/min (484 cfm)	-	75 KW	Physical Monitoring
South comp. house	Mobile Compressor X2	Standby mobile Unit	59.7 m^3/min (2000 (CFM)	N/A	N/A	Physical Monitoring

The *Contractor* to have access to the OEM spares, tolerance, specifications as well as maintenance and commissioning procedures required to perform the required maintenance on all Arnot compressors. To also have the necessary special tools and equipment to service the specific make and models of Arnot compressors. The *Contractor* to provide plan of the spares that will be required for break downs and general maintenance.

Performance test for each compressor machine i.e humidity, due point temperature, flow rate, pressure to be conducted by the *Employer* prior the machine taken out for major services and after service done, inclusive of the dryers. Prior to the compressor machine taken out of the system for service, the *Contractor* shall supply a mobile compressor machine at their cost to supplement the shortfall to accommodate the situation until the isolated compressor machine is returned back to service after the services are done.

The *Contractor* draws up a maintenance schedule for running hours of each machine and planning for defects found in the plant for all compressor maintenance interfaces for the four-year period with forward planning of six months intervals, ensuring the relevant services and any major or minor overhauls or part replacements are planned. This will also be the basis of ensuring the required spares and consumables are available and the maintaining of the stock levels for the Arnot compressors.

The control air system at Arnot Power Station consists of 22 compressors. Constant pressure of 590 kPa is maintained. All the permanent installed compressor machines are CompAir Compressors.

The following indication applies for the control air system:

- Control air press high = 640 kPa (to prevent surging of Centrifugal Turbo Compressors at 6.5 bar)
- Control air normal = 590 kPa
- Control air press low = 480 kPa at Units DCS
- Control air lock-out = 420 kPa

Scope Of work

The works is the Maintenance to repair/service, unscheduled and scheduled deficiencies during the time period in which they occur on the station air and control air compressors and related plant as stated in the works information for the duration of the contract period. The scope also covers:

- TA2000 compressors
- All CompAir Screw compressor
- Evapco Cooling Towers
- Turbine Forced Cooling compressor
- Heatless absorption desiccant dryers
- Filter banks (water cyclonic separators, general purpose protection particulate filters, high efficiency oil removal coalescing filters)
- Bag-filter house forced draught cooling fans
- Air ducts and intake filters
- Condensate drains
- All other auxiliary equipment

The *Contractor* supplies trained manpower for the execution of the works on a daily basis and a qualified trained technicians/artisans for the servicing major/minor work scopes. The permanent site staff provided by the *Contractor* will be to monitor and do the day to day front line maintenance, fault finding and maintenance of the compressed air system which will be required to be executed by a competent artisan who has a knowledge of the compressor plant and electrical skills to do effective fault finding and maintenance where it is required. The *Contractor* to provide certificates of competency for all the employees that will be executing works on all the different types of Arnot compressor machines and its auxiliary equipment.

1. **<u>Technical Specialist (Contract Manager)</u>**
    - 5-10 years' maintenance experience on the following Compressors: Cameron TA2000;
    - CompAir Screw Compressors

2. **<u>Service Engineers</u>**
    - Staff of 3 Service Engineers (cover breakdowns and maintenance activities 24/7 & and on standby 365 days)
    - 1-5 years' maintenance experience on the following Compressors: Cameron TA2000; CompAir Screw Compressors
    - Factory certified for the Cameron TA2000 machines
    - Trained and in possession of CompAir Screw Compressor passport

3. **On-site Technician**
    - Daily on site in the Plant inspecting and maintain the Compressor Plant
    - Familiar with Eskom Policies and Procedures
    - On standby 24/7 for Plant coverage
    - Located within 55km radius from Arnot Power Station
    - Minimum 3 years' experience of first line maintenance on Cameron TA2000; CompAir Screw Compressors

The *Contractor* shall ensure that no plant defects are evident. The contractor shall conduct plant walk downs for the common supplied compressed air system identifying and reporting air leaks on common supplied compressed air system.

Maximum compressor availability and reliability be 100% must be maintained. This will be achieved by daily plant walks and availability and reliability indicators done per compressor and auxiliaries per day. The following strategy is applicable and must be adhered to.

Availability

The objective of the *Employer* is to provide a reliable and effective control air supply for the power station to use, with due consideration of the cost effectiveness and long-term maintainability of such system.It is the *Contractors* responsibility to determine the impact of control air system variation not surpassing the lowest limit. Based on the system performance of the machines and. 5.9 bar should always be maintained.

The *Contractor* during his daily duties walks the plant and identifies air leaks or any deviations which affects the loss of control air to the system.

The *Contractor* will adhere to the permit to work system when any maintenance activity is performed. Safety rules and regulation will be adhered to.

The compressor system, all compressor components and auxiliaries will be maintained on a plant maintenance schedule for servicing, overhauling and replacement at end of life or exceeded hours in service. The *Contracto*r evaluates the state of plant and reports to the *Service Manager* the requirements and schedules that will be required at intervals of six months ahead for planning of spares and labour as required.

All maintenance and services performed, in terms of this agreement, shall take place during normal working hours, Monday to Thursday between the hours of 07h00 and 16h15 and Friday between the hours of 07h00 and 12h00 or as dictated by the plant conditions which may require weekend work to be carried out. The *Contractor* ensures availability of staff for breakdown or emergency work after hours, weekends and public holidays and to do the fault finding to determine what intervention from the Technicians is required or direction required to do the necessary repairs to place the compressor back in service.

For any emergency condition the *Contractor* will react to the request within 45 minutes, any condition on the compressors that could cause load losses on the units due to low control air will be addressed on a HIGH PRIORITY basis and the *Contractor* ensures the load loss threat has been cleared before going off site.

Spares for the works is to be managed by the *Contractor* for the servicing, maintenance, overhauls and breakdowns requirements and a total list of spares for all compressors as per the pricing list which is in Section C2. Pricing Data Option A. The *Contractor* shall do audit of spares bi-annualy to check all the required spares (mins & max) are available at the storage containers located at Arnot Power Station South Contractor's Yard and CompAir Warehouse.

Compressor spares will be utilised at intervals as listed in the maintenance and servicing schedule supplied by the *Contractor* for each compressor during the Contract period.

All defects, routine servicing, PM's & CM's will be captured by the Planning Department and all work will be carried out based on Eskom SAP works management system. The *Service Manager* will arrange the planner which will be responsible for the scheduling of work based on a 14 day window.

The *Contractor* gives a daily report on condition, operation and deviations that are or need to be addressed and where additional hours are to be worked notifies the *Service Manager* for approval. The *Contractor* as part of this service also investigates and submits proposals for improving or suggesting better practices which could improve operation on the compressor plant.

Where callouts or breakdowns are to be attended to after-hours the *Contractor* notifies the *Service Manager* of the incident and attends to the incident accordingly.

Scope of work Boundaries

The scope of maintenance covers all equipment and components within the following physical boundaries:

- **Compressor System:**
  From the compressor inlet suction filter through to the discharge outlet isolating valve, including all associated equipment located on the plant premises.
  This includes suction ducts and filters external to the compressor buildings.
- **Associated Equipment:**
  - Drains, condensate drain solenoids, and drain piping connected to the compressors.
  - Coolers and cooling water (CW) pipework.
  - Valves, air discharge pipework, filters, and filter ducting.
  - Heatless absorption desiccant dryers and their electrical control systems.
  - Electrical systems integral to compressors and dryers.
- **Cooling Water (CW) Boundaries for Turbo Compressor Units (TA2000):**
  Inclusive from the inlet strainer up to and including the cooling towers located within the North Compressor House and bag filter houses.

2. Outside Battery Limits (OSBL) Components

The following components are considered OSBL but require monitoring and reporting of any deviations to Eskom:

- Electrical supply to compressor motors.
- Centrifugal turbo compressor motors classified as Eskom stock and RF items.

- Electrical supply from Eskom boards to bag filter compressor motors, excluding the local control panels.
- Statutory inspection, testing, and repairs of receivers in accordance with pressure vessel regulations.
- Electrical control panels situated within Eskom boards.
- Electrical supply lines feeding dryers and cooling towers up to local panels.

3. Contractor Responsibilities

- Perform day-to-day routine inspections and maintenance within the defined boundaries.
- Maintain continuous communication with the Eskom Service Manager, main control room operators, and outside plant shift supervisors to ensure smooth operation and rapid response to any issues.
- Immediately report any deviations, abnormalities, or safety concerns related to the compressor systems or auxiliary equipment within the scope.
- Adhere to Eskom's safety, operational, and reporting standards throughout all maintenance activities.

Performance Criteria

The compressed air system must always maintain an average system pressure of 590 kPa, as measured by the gauge pressures at both the **North** and **South Compressor Houses**.

KPI	Explanation of Performance Criteria	Penalty
Individual Compressor Availability	Each compressor must maintain an annual average availability of **≥92%**. Availability below this threshold will incur penalties.	R10,000 per compressor per annum for availability < 92%.
Individual Compressor Performance	Each compressor must maintain an average annual discharge pressure between **600 kPa and 620 kPa**. Pressures below 600 kPa will incur penalties.	R10,000 per compressor per annum for pressure < 600 kPa.
Compliance to Scheduled Maintenance	All scheduled maintenance tasks, including daily check sheets and services at 3-monthly, 6-monthly, and 12-monthly intervals, must be completed at 100% compliance.	R10,000 per compressor or dryer per annum for any missed scheduled service.

Scheduled Maintenance Routines

Equipment	Service Type	Qty per Unit	Notes
All Screw Compressors	Minor Service	8x	Applies to all models (L55, L250, etc.)
	Major Service	4x	
	Overhaul	1x	Once in 4 years
	V-Belt/Hose Replacement	2x	Except Standby 7 (hose only)
Centrifugal Compressors	3-monthly Service	8x	TA2000 & Cameron Turbo 2000
	6-monthly Service	4x	
	12-monthly Service	4x	
AXS Dryers (X23)	6-monthly Service	4x per dryer	
	12-monthly Service	4x per dryer	
	36-monthly Service	1x per dryer	
	60-month Service	1x per dryer	Replaces 36-month service
Filters	6-monthly Change	8x per bank	Water cyclone, Particulate & Coalescing filters
Cooling Towers (x9)	6-monthly Service	7x per tower	Evapco Induced Draft
	New Units Supplied	6	

Interpretation and terminology

Abbreviation	Meaning
bar	Bar – A metric unit of pressure, equivalent to 100,000 Pascals (Pa) or 100 kilopascals (kPa).
CFM	Cubic Feet per Minute – A unit of volumetric flow rate indicating how many cubic feet of air move per minute.
CM	Corrective Maintenance – Scheduled activities to repair or replace faulty equipment identified during inspections or after failures.
CT	Cooling Tower – An induced draft cooling system with a fan mounted at the top to remove process heat via water evaporation.
CW	Cooling Water – Water used as a coolant to remove heat from equipment or processes via heat exchangers and towers.

Abbreviation	Meaning
comp.	Compressor – A machine that compresses air or gases by reducing volume to increase pressure.
DCS	Distributed Control System – A computer-based system that distributes control across multiple controllers to manage industrial processes.
EOD	Electrical Operating Desk – A workstation for managing and operating electrical systems or switchgear.
FFP	Fabric Filter Plant – A system using fabric bags to remove dust particles from industrial gas streams.
kPa	Kilopascal – A unit of pressure equal to 1,000 Pascals.
kW	Kilowatt – A unit of power equal to 1,000 watts, used to express electrical power.
m^3/min	Cubic Meter per Minute – A unit measuring the volume of air or gas flow per minute in cubic meters.
OSBL	Outside Battery Limits – Infrastructure supporting the plant but located outside the primary process boundary.
PM	Preventative Maintenance – Scheduled servicing to prevent failures and maintain optimal equipment performance.
QTY	Quantity – The number or amount of a particular item.
V	Volt – The SI unit of electric potential or electromotive force.

Management strategy and start up.

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

The *Contractor* supplies the *Employer* with their *Contractor's* plan. The *Contractor* must submit the *Contractor's* plan at the inception of this contract. The *Contractor* compiles a service schedule based on running hours and defects and plan for the various types of servicing and maintenance interactions throughout the contract duration including management of the spares and consumables that will be required for each intervention. The plan will be based on the hours run or time based as agreed by both parties and the plan to be submitted to the *Service Manager*.

The *Contractor's* plan must include but is not limited to the following:
Quality management system implementation programme. A Quality Control Plan (QCP) for each Interim and Major service performed on all (x23) Compressors withhold, witness and verification points for the *Employer* to check and monitor progress.

Management meetings

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Overall contract progress, costing, risk management, financial, and feedback.	Monthly on last Tuesday of the month.	Arnot Power Station or virtual meetings via MS Teams.	*Employer*, *Contractor* and any relevant invited persons.

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.

Contractor's management, supervision and key people

The *Contractor* supplies all the contact details and responsibilities of each person involved with this contract and indicate the line of authority on an organogram. He indicates the methodology of work execution and responsibilities of each person involved with the Compressor maintenance.

Where the *Contractors* site representative worked through the night, sick leave, annual leave or any other reason for not being on site, *contractor* will be required to ensure that a replacement or cover is available for the site activities and manages these periods and informs the *Service Manager* of his plans.

Documentation control

The standard forms to be used by the *Contractor* in the administration of the contract, such as early warning and compensation event notifications are to be submitted to the *Employer* and shall be on the NEC document format which shall be made available to the *Contractor* by the *Employer*.

Invoicing and payment

Within two working days of receiving a payment certificate from the *Employer* 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 *Employer's* payment certificate.

The Contractor shall address the tax invoice to:

Finance Department (Accounts Payable Section)
Arnot Power Station
P/Bag X2
Rietkuil
1097
and include on each invoice the following information:

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

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

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

Any equipment and spares that was purchased through this *Contract* for the operations or maintenance of the plant will remain the *Employers* property and all the records and documentation pertaining to the maintenance and compressor management, services and operations.

Information and other things

The *Contractor* uses the data collected as on plant operations and history, to motivate changes, replacements and modifications to the plant. All modifications to the plant are done in consultation with *Employer* engineering department.

On completion of the Contract, the system including all information and data collected on the planning system by the *Contractor* is handed over to the *Service Manager* on software.

Training workshops and technology transfer

Activity	Frequency	Participants	Scope	Linked Maintenance
PM Procedures Workshop	Annual	Maintenance Technicians	Hands-on training on preventive maintenance (PM) tasks	Screw/Centrifugal Compressor PM
CM Response Training	Bi-annual	Operations Team	Procedures for overhauls and breakdown repair (CM)	Compressor Overhauls (CM)
Dryer Maintenance Demo	Every 36 months	Electrical Staff	AX Series and desiccant dryer servicing demonstrations	36-month Dryer Services
CT Operation Course	Every 24 months	OSBL Support Teams	Cooling tower performance and water system optimization	Cooling Tower (CT) Biannual PM
DCS Familiarization	Quarterly	Control Room Operators	Monitoring, alarms, and integration of compressor systems with DCS	All Compressor Maintenance Activities
Filter Change SOPs	Every 6 months	New Hires	Safe removal and replacement of filter elements (FFP & Coalescing)	Biannual Filter Changes

4. Services Provided by the Employer

- The **Employer** is responsible for:
  - **Plant isolation** prior to work commencement.
  - **Permit issuance and acceptance** before work starts.

5. Management of Work by Task Order

- Work must be executed **only under a written Task Order** issued by the Employer.
- **Valuation of work** is based on the Price List unless otherwise specified.
- Actual quantities will be confirmed **per Task Order requirements**.
- The **Contractor must submit** all necessary documentation to support cost determination:
  - **Monthly assessments**
  - **Task Order-based evaluations**

6. Health, Safety, Environmental & Quality Assurance

6.1 Health and Safety Risk Management

Contractor Responsibilities:

- Costs for medicals and safety inductions are borne by the Contractor.
- Must provide and enforce use of PPE as per OHSACT.
- Submit Material Safety Data Sheets (MSDS) for all hazardous substances; no usage without approval.
- Adhere to Eskom chemical specifications (GGSS1181).
- Comply with Arnot site waste management, spill cleanup, and environmental procedures.
- Implement and maintain an approved safety policy, covering:
  - PPE
  - Safe work procedures
  - Job-specific risk assessments
  - Safety meetings

6.2 Workplace Safety Protocols:

- Subject to regular audits by the Employer.
- Unsafe practices or non-compliance may result in a stop-work order.
- Conduct job observations and maintain continuous safety awareness.
- Contractor is deemed the Employer under OHSA (Section 37).
- Must appoint competent persons per statutory and Eskom safety regulations.
- The Contractor indemnifies the Employer against any legal or financial liabilities arising from SHEQ non-compliance.

7. Environmental Constraints & Management

7.1 Environmental Management Requirements:

- Contractor must:
  - Implement an Environmental Management System (EMS) accepted by the Employer.
  - Comply with Arnot Power Station's environmental procedures.
  - Pass periodic environmental audits with corrective action as needed.

8. Key Environmental Areas:

- **Stormwater Management:** Ensure separation of clean and polluted water.
- **Contaminated Soil:** Must be removed and disposed of at approved sites.
- **Redundant Material:** Sent to reclamation yard upon Employer approval.
- **Noise/Emissions/Pollution:** Control and remove faulty equipment.
- **Wash-down Facilities:** Use only designated wash-down zones.

9. Quality Assurance Requirements

- Implement and maintain a Quality System (minimum ISO9001:2008).
- Submit Quality Control Plans (QCPs) and inspection levels for approval, based on equipment criticality.
- Compile and submit data packs:
  - Test certificates
  - Drawings
  - Design reviews
- Employer will conduct periodic quality audits.
- All non-conformances must be corrected to Employer satisfaction.