	<b>Scope of work</b>	<b>Engineering</b>
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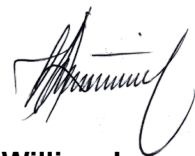
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### CONTROLLED DISCLOSURE

## 1. Introduction

This contract establishes an integrated service partnership for comprehensive industrial cleaning and contamination control across Kendal Power Station's Coal and Auxiliary Plants. The scope encompasses all critical infrastructure, including coal handling chutes and conveyors, electrical substations, cable tunnels, drainage systems, and the cooling water circuit.

The operating environment generates persistent contamination vectors:

**Coal Plant:** Fugitive coal dust poses a critical risk of fire, explosion, and insulation failure in substations, while abrasive deposition accelerates wear on conveyor systems and delicate equipment.

**Auxiliary Plant:** Accumulation of fly ash and coal residue compromises heat exchange efficiency in cooling systems, blocks drainage, and creates general housekeeping hazards. Unmanaged, these conditions directly threaten plant safety, asset life, and operational efficiency.

By partnering with a specialized provider for this mission-critical, non-core function, Kendal Power Station achieves a strategic division of labour. This allows internal engineering and operations resources to focus exclusively on core value-creation activities: plant optimization, predictive maintenance, and grid stability. The supplier's performance is thus directly aligned with the station's primary objectives of ensuring safety, maximizing asset availability, and guaranteeing a reliable, sustainable electricity supply.

## 2. Supporting Clauses

### 2.1. Scope

The objective of this SOW is to establish the technical requirements, cleaning standards, and specific areas of responsibility. This ensures the removal of ash, dust, and other contaminants to maintain plant safety and structural integrity, prevent premature equipment failures, and ensure full compliance with Safety, Health, and Environmental (SHE) regulations.

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### 2.1.1. Purpose

This document defines the performance-based scope for a strategic service partnership focused on Boiler Plant Integrity Assurance through systematic contamination management at Kendal Power Station. Its intent is to establish clear outcome-based performance standards and a collaborative management framework that aligns the service provider's objectives with the plant's core goals of safety, reliability, and environmental compliance. The duration of the contract will be 60 months (5 years).

### 2.1.2. Applicability

This document shall apply to Kendal Power Station.

## 2.2. Normative/Informative References

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

### 2.1.3. Normative

- [1] ISO 9001 Quality Management Systems.
- [2] Occupational Health and Safety Act (Act 85 of 1993) with applicable standards and regulations.
- [3] 32-95 OHS Incident Management Procedure Rev 9.
- [4] 32-136\_Contractor Health and Safety Requirements
- [5] 32- 421 Eskom Life Saving Rules.
- [6] 32-726 Standard Contract and Contractor OHS Management Rev. 3
- [7] 32-727 - Eskom Safety, Health, Environmental and Quality (SHEQ) Policy
- [8] National Environmental Management: Air Quality Act (No. 39 of 2004)
- [9] Kendal Ash Disposal Facility Water Use License
- [10] Kendal Ash Dump Waste License
- [11] The National Water Act (Act 36 of 1998) and Regulation GN 704 include other

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applicable regulations.

[12] Ash Dump Environmental Management Plan.

[13] Ash Dump Operational and Maintenance Manual

#### 2.1.4. Informative

[1] Best Practice Guidelines (relevant and applicable).

### 2.3. Disclosure Classification

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

### 2.4. Abbreviations

Abbreviation	Description
PPE	Personal Protective Equipment
SHEQ	Safety, Health, Environment and Quality
OHSa	Occupational Health and Safety Act
TLB	Tractor, Loader-Backhoe
QMS	Quality Management System
ISO	International Organisation for Standardisation
FAB	Fly Ash Bunker
PF	Pulverized Fuel
FEL	Front End Loader
VT	Vacuum Truck

### 2.5. Roles and Responsibilities

**Compiler:** Responsible for compiling the document and ensuring that the content is integrated.

**Contractor:** The Contractor shall be responsible for the duties as defined in section 7, "Duties of the Contractor" of the Construction Regulations and all duties as defined by Contract data.

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**Employer:** Eskom Holdings is the owner of the plant and has the responsibility of providing reliable electricity to the country.

**Functional Responsible:** The Functional Responsible person is responsible to approve the content of the document and assure its correctness before the document is submitted for authorization.

**Authorizer:** The document Authorizer is responsible to ensure that the correct processes were followed in developing this document and that the relevant stakeholders have been involved. The authorizer also reviews the document for alignment to business strategy, policy, objectives and requirements. He/she shall authorize the release and application of the document. Process for monitoring this document shall be utilized as a baseline document during the validation of design documentation during the various, subsequent design phases by using the Design Review Procedure and the Verification and Validation (V&V) process. Should the document require modification, the appropriate Project Engineering Change Procedure will be adhered to.

## 2.6. Process for Monitoring

N/A

## 2.7. Related/Supporting Documents

N/A

# 3. Scope of Work

## 2.1. Executive Overview

This contract is for the industrial cleaning on the Coal Plant, Coal plant chutes, all coal conveyors and coal substations, at Kendal Power Station. Clean is defined as free from build-up of dust, debris, ash, grease, oil, litter, pools of water or any other condition that may reflect poor housekeeping. Cleaning is deemed to have been carried out if the minimum, as defined on the scope of work has been affected.

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The areas to be cleaned and the minimum frequency at which they must be cleaned are defined on the scope of work and are further clarified on the scope of work break down. All defects must be attended to immediately, irrespective of the defined cleaning frequency.

Expected nature of rubbish and dirt to be cleaned is coarse and fine ash settling, coal and pulverised fuel, dust on plant and equipment and oil and grease spillages from and over machinery, as a result of normal activities. The amount of coarse and fine ash, coal, grease and oil spillages, rubble, litter, debris and blockages is expected to be significant. Any spillage of material caused by coal changes or defective plant will be viewed as process cleaning.

The Contractor is expected to provide a 8-hour a day service, 5 days a week with weekends and public holidays covered by teams on standby for emergency call outs. Continuous cleaning while on duty is expected on all areas included on the scope.

During outages, normal cleaning will continue on the affected plant.

This contract is an all-inclusive contract, the contractor needs to make provision for any overtime or public holidays worked, including shift allowance.

Eskom is implementing a workflow management system, and the Contractor will be expected to attend Daily meetings and provide maintenance plans as required.

Where permit to work is required, cleaning personnel responsible for that particular plant will be responsible for taking the permit for cleaning on that particular plant as per the Plant Safety Regulations.

## 2.2. Coal Plant

Sampling plant, all coal conveying, transfer house, stacking, reclaiming, transfer point located at the entrance of the Boiler House. All coal conveyors inside the boiler house up to the coal bunkers.

All drive houses, transfer houses and support structures in the areas of the systems Including the take-out conveyors, surge bins and on the incline coal conveyors continuously.

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During the raining season the contractor needs to ensure there are additional resources to ensure a continuous flow of coal to the bunkers.

Cleaning includes and not limited the sweeping, dusting, vacuuming of coal conveying systems and its associated structures from the mine belts to mill bunkers (all conveyors included).

These also include roads, equipment rooms, ducting, bins and platforms in the transfer houses and coal conveying systems. Cleaning of the coal plant is continuously required. Coal spillage varies from time to time. The contractor will be required to offload and load a coal belt should it be required to do due to plant failures.

During rainy season, the contractor will have to unblock blocked chutes in the coal conveying system and additional resource may be required to aid production. The rainy season plan is as follows:

This will be a temporary arrangement for rainy days. The service will be terminated when the rain stops because the risk of blocked chutes will be minimal.

The additional resources should be available Monday to Sunday depending on the rain pattern. Employees will be expected to be on standby depending on the plan from the contractor.

### **Work hours will be**

**Monday – Friday 07:00 – 16:00.**

The contractor is expected to clean the following areas:

- ✓ S8 A&B,
- ✓ T1 A &B,
- ✓ T2 A&B,
- ✓ T3A &B,
- ✓ T5A, T5B, T5C, T5D, T5E, T5F,
- ✓ Surge bin 1&2,
- ✓ Terrace bin 1,2 and 3,
- ✓ mill bunker filling short and long cross conveyors from unit 1 to unit 6.

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The drawings of the above plants can be obtained if required.

The plant cleaning team will be divided into the following sections:

- a) Coal stock yard
- b) Terrace coal

### 2.3. Chute Cleaning

Continuous cleaning of coal chutes on day cycle. The Contractor shall at all times maintain a continuous coal flow to running units. Cleaning of terrace bins and mill bunker filling to be done in accordance with Kendal Procedures.

### 2.4. Auxiliary Plant

The Contractor shall develop and maintain a condition-based cleaning regime to achieve the following performance standards in critical plant areas:

**Cable Tunnels:** Maintain a Contamination-Free Zone to mitigate fire, insulation failure, and corrosion risks. The performance standard is the absence of accumulated ash, dust, or foreign material on cable trays, walkways, and support structures. Monitoring and cleaning frequency shall be determined by the Contractor based on dust ingress rates and demonstrated through inspection logs.

**Cooling Towers & Heat Exchange Systems:** Ensure Optimal Thermal Performance Integrity. The performance standard is maintained heat transfer efficiency, evidenced by the absence of fouling materials (dust, debris, biological growth) on fill packs, distribution basins, and cold-water basins. The regime must prevent blockages and material buildup that directly impact the plant's designed heat rejection capability.

**Cooling Water Plant & External Areas:** Uphold Environmental & Operational Reliability. The performance standard includes clear walkways, free-draining sumps, and the control of vegetative growth around critical pipework and structures to ensure safe access, prevent root

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intrusion, and support system integrity. The Contractor shall propose a management plan for these external areas, including weed control methodologies.

The Station will provide a detailed asset register and access to all included areas. The Contractor is responsible for developing, submitting for approval, and executing a comprehensive Area Management Plan. This plan must detail the risk-based inspection frequencies, cleaning methodologies, resource allocation, and key performance indicators (KPIs) for each area, demonstrating how the performance standards above will be consistently met.

The contractor is expected to clean the following areas:

- ✓ Boiler Passenger lifts unit 1-6
- ✓ Boiler Goods lifts unit 1-6
- ✓ PAX room – Basement of SSB
- ✓ All Carports
- ✓ All station roads and side walks
- ✓ Units 1-3 CW pump pits
- ✓ Turbine -4.5m level
- ✓ Turbine -6m level Units 1-6
- ✓ All station auxiliary switchgear rooms
- ✓ All station sub-station rooms (26 off)
- ✓ All Diesel Generator Rooms
- ✓ Battery Rooms Units 1-6 (To be reviewed with turbine Engineering)
- ✓ MV Switchgear rooms Units 1-6
- ✓ LV Switchgear rooms Units 1-6
- ✓ Aux cooling ponds cleaning East and West
- ✓ Fuel oil plant

## 2.5. Expected Nature of Waste Removal

The nature of the rubbish and dirt to be cleaned in the Coal Plant is expected to be coarse and fine coal settling on plant and equipment as a result of normal duties. Also, equipment may be contaminated with oil and grease as a result of normal duties. Amounts of coarse and fine coal

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are expected to be significant. Spillages of coal may be significant; oil spills are expected to be minor.

#### Notes

- ✓ Due to seasonal and coal quality changes, the workload will vary from month to month.
- ✓ Contractor to follow the maintenance philosophy in terms of cleaning.
- ✓ Any coal spillages caused by a blocked chute or negligence by Contractor will be cleaned immediately by the Contractor.
- ✓ The Contractor must provide his own teams for cleaning such spillages.
- ✓ All work shall be done according to Kendal Safety Regulations and the Generation Plant Safety Regulations.

## 2.6. Cleaning Base Crew, and Labour Laws

Contractor maintains a base crew, with applicable hand tools required for the Works at Kendal Power Station. The Contractor supervises the base crew.

The base crew should comprise of the following at minimum:

<b>Day Shift</b>	
Coal stock yard	The designated number of 80 cleaners per shift
Auxiliary designated areas	The designated number of 40 cleaners per shift
<b>Night Shift</b>	
As and when required	Depend on the scope of work to be covered
<b>Additional Resources - Rainy season</b>	
Coal stock yard and auxiliary designated areas	This will depend on the production demand
<b>Supervisor (authorized as responsible person to take out permit to work if intensive cleaning is needed)</b>	<b>Minimum 1 supervisor per shift</b>

The base crew supervisor must report on a daily basis to the coal plant supervisor. The Contractor shall comply with all local and statutory labour laws (LRA, BCEA, UIF etc.) and agreements and shall promptly attend to any labour grievances that may arise. The Contractor shall not remunerate his employees at less than the proclaimed statutory wage (Minimum

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Wages Act). Failure in this regard will result in non-performance and therefore immediate termination of the contract.

Please note that 12-hour shifts per day are required and a desired shift cycle by the Contractor to be approved by Services Manager needs to be worked.

## 2.7. Expected Industrial Cleaning Needs

EQUIPMENT TO BE CLEANED	METHODS	FREQUENCY	REMARKS
Gearboxes	Sweep, remove oil and grease and damp clean, splash water is allowed. Avoid direct water jets	Daily	Take care when cleaning moving/rotating plant
Gauges	Water wash and remove oil and grease, alternatively sweep and damp clean	Daily	
Valves	Water wash and remove oil and grease, alternatively sweep and damp clean	Daily	Take care when cleaning moving/rotating plant
Drains	Vacuum clean, pick up all rubbish, rubble, discard spares and clean.	Daily	
Fire extinguishers, hydrants and hose reels	Dust and damp clean.	Daily	
Dust bins	Empty into local rubbish container and clean.	Daily	
Concrete elevated floors	Vacuum floor sweeping with occasional water wash and sweep. Where floor sweepers cannot access, water wash and sweep.	Daily	
Basement floor	Vacuum floor sweeping with occasional water wash and sweep. Where floor sweepers cannot access, water wash and sweep.	Daily	
Grated floors	Dust, and pick up all rubbish, rubble and discards	Daily	
Pedestals	Water wash and scrub, alternatively dust, scrub and clean.	Daily	
Conveyors, Conveyor structures, idlers, counterweights, drive stations and pulleys.	Sweep, vacuum clean, degrease and damp clean using detergents when needed. Remove all coal and coal dust underneath belts and idlers and pulleys.	Daily	Take care when cleaning moving / rotating plant no detergents to enter oil
Floors	Vacuum floor sweeping with occasional water wash and sweep. Where floor sweepers cannot access, water wash and sweep.	Daily	

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Electric motors electric plugs	Sweep and damp clean using detergent/degreasing fluid, splash water is allowed avoid direct water jets.	Daily	Take care when cleaning moving/rotating plant
Electric panel boards	Sweep and damp clean	Daily	Open panels not to be cleaned
Switch and control boxes	Dust and damp clean, no direct water jets	Daily	
Reclaim tunnels	Sweep, and pick up all rubbish, rubble and washed-in coal	Daily	Take care of moving plant.
Light fittings	Dust and damp clean, splash water is allowed. Avoid direct water jets	Daily	
Telephone cubicles	Dust and damp clean	Daily	
Drives	Water wash and remove oil and grease, alternatively sweep and damp clean	Daily	Take care when cleaning moving/rotating plant
Coal spillages on all coal conveyors on site	Sweep and pick up coal	Daily	
All coal conveyors overland	Empty the conveyor and remove spillages	As and when required	
Structures, hangers, supports and roofs	Sweep and damp clean	Daily	Wear safety belts where required
Bunker area	Sweep, and pick up all rubbish, rubble and ensure housekeeping	Daily	
Surge bins area	Sweep, and pick up all rubbish, rubble and ensure housekeeping	Daily	
Reclaimers	Sweep, and pick up all rubbish, rubble and ensure housekeeping	Daily	
Nuclear room	Sweep, and pick up all rubbish, rubble And ensure housekeeping	Daily	
Coal house walls, beams and structure	Sweep, dust, damp clean and scrub	Daily	
Steel stairwells	Dust, sweep and pick up all rubbish, rubble discards	Daily	
Handrails	Dust and damp clean	Daily	
Fire extinguishers, hydrants and hose reels	Dust and damp clean	Daily	
Dust bins	Empty into local rubbish container/skips and clean	Daily	

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**4. Bill of Quantities – Tools and Equipment**

MANPOWER						
No	Description	Qty	Normal Working Times	Rate P/H	Cost P/Month	Total Cost for 60 Months
1.	Site Manager	1	Mon - Thurs (07:15-16:30)	R	R	R
2.	Administrator	1		R	R	R
3.	Supervisors	2		R	R	R
4.	Safety Officers	1		R	R	R
5.	Cleaners	120		R	R	R
6.	Operator	7	Friday (07:15-12:15)	R	R	R
7.	Operator (road sweeper)	1		R	R	R
TOTAL					R	R
OVERTIME						
	Overtime rates	Saturday	Sunday	P/Holidays	After Hours	Comments
8.	Site Manager	1.5	2.0	2.0	1.5	As and When Requested and Approved.
9.	Supervisor					
10.	Safety Officer					
11.	Cleaner					
12.	Utilityman					
13.	Operator					
14	Operator (road sweeper machine)					

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SHIFTS					
15.	Day Shift	07:15-16:30	Fridays: shifts start after 5 normal hours worked		
16.	Night Shift	19:15 - 04:30	Saturdays & Sunday: Shifts starts immediately		
PPE					
	Description	Qty P/Person/Yr	Total Qty	Price Per Item	Total Cost for 60 Months
17.	Overalls	4		R	R
18.	Raincoat	2		R	R
19.	Gumboots/Safety boots	1		R	R
20.	Goggles	4		R	R
21.	Gloves	4		R	R
22.	Earplugs	4		R	R
23.	Hard hat	1		R	R
TOTAL				R	R
TOOLS & EQUIPMENT					
	Description	Qty	Rate P/hour	Price: (Item/Monthly)	Total Cost for 60 Months
24.	Vacuum Truck	2	R	R	R
25.	Bob Cats	4	R	R	R
26.	Front-End loader	1	R	R	R
27.	10 Cube Tipper Truck	3	R	R	R
28.	Road Sweeper Machine	1	R	R	R
29.	Shovels			R	R
30.	Pickaxes			R	R
31.	Wheelbarrow			R	R
32.	Broom			R	R

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33.	Hose pipes with spray nozzle			R	R
34.	Dust Blowers			R	
<b>TOTAL</b>				R	R
<b>TRANSPORTATION</b>					
35.	Home-Work-Home Transport			R	R
36.	LDV Double Cabs	2		R	R
<b>TOTAL</b>				R	R

<b>HEALTH &amp; SAFETY</b>					
	Description	Qty		Price P/Item	Total Cost for 60 Months
37.	Medicals	110		R	R
38.	Fingerprints	110		R	R
39.	Safety File	1		R	R
<b>TOTAL</b>				R	R
<b>Ps &amp; Gs</b>					
40.	Site Establishment	1			R
41.	Site De-establishment	1			R
<b>TOTAL</b>					R
<b>CONSUMABLES</b>					
<b>TOTAL</b>				R	R
<b>TOTAL COST FOR 60 MONTHS</b>					R

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<b>Resources - As and when</b>					
<b>Resources + Quantities</b>	<b>Qty</b>	<b>Rate/Hour</b>	<b>Cost/Hour</b>	<b>Hours</b>	<b>Total Cost/Month</b>
Supervisor	1				
General Workers	20				
Operators (Road Sweeper)	1				
<b>Total</b>	<b>22</b>				

<b>Equipment - As and when</b>					
<b>Resources + Quantities</b>	<b>Qty</b>	<b>Rate/Hour</b>	<b>Cost/Hour</b>	<b>Hours</b>	<b>Total Cost/Month</b>
Road Sweeper	1				

## 5. General

- The contractor should ensure that there is no water ingress on the drive trains, electrical components and all hydraulic equipment.
- Due to inclement weather on the Kendal ash dump and the use of water to clean the equipment, the ground upon which the shiftable conveyors are placed may sag and settle unevenly. The use of non-water cleaning methods will be preferred along the length of the shiftable conveyors if possible and or minimised.
- The Contractor is responsible for cleaning of the moving of the shiftable conveyors as well as the stacker and spreader machines in preparation of the required belt shift.
- The Contractor shall provide additional equipment and resources or arrange for additional

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shifts when necessary to cope with the varying workload.

## 6. Authorization

This document has been seen and accepted by:

Name & Surname	Designation
S. Mthethwa	Integration Manager
N. Mzobe	Boiler Maintenance Manager
W. Letwaba	Ops Manager
M. Gcaleka	Aux Eng Manager
P. Takane	Engineering Manager

## 7. Revisions

Date	Rev.	Compiler	Remarks
December 2025	0	M Mkhize/S Mthethwa	

## 1. Development Team

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

- M Mkhize
- S Mthethwa
- W Letwaba

## 2. Acknowledgements

- N/A

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