

	<b>SCOPE OF WORK</b>	<b>Camden Power Station</b>
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Title: **Camden Power Station – Asbestos  
Approved Inspection Authority for  
Outage and Maintenance Work**

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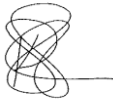

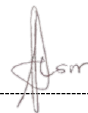
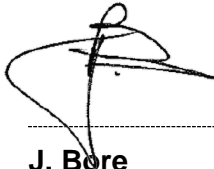
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## **1. Introduction**

According to Regulation 11 of the Asbestos Abatement Regulations, Asbestos client (Camden Power Station) is required to appoint an Approved Inspection Authority (AIA) in writing, to monitor the concentration of airborne Asbestos fibres.

Furthermore, Camden Power Station is in the process of maintaining SANAS and ISO 17020:2012 system with the aim of maintaining SANAS AIA certification. The systems require an organisation to identify general requirements for the competence to provide reliable calibration, measurement, sampling, testing, verification, and inspection infrastructure for Eskom, this will assist the business unit in putting in place appropriate measures to ensure compliance and achieve ZERO HARM.

## **2. Supporting Clauses**

### **2.1 Scope**

The issued scope of work is applicable to Camden Power Station Generation Division.

#### **2.1.1 Purpose**

2.1.1.1 To identify a reliable supplier (***a department of labour Approved Inspection Authority for Asbestos***) for Camden Power Station. Such supplier needs to be accredited by SANAS as an Inspection body for workplaces as per ISO 17020.

2.1.1.2 The reliable supplier must be or use a SANAS 17025 accredited laboratory. The laboratory must meet the requirements for counting asbestos/analysing bulk samples (to determine the presence of asbestos) taken at Camden Power Station. The identification and evaluation of SANAS compliance will focus on the principles and requirements as set out in the SANS 17020 and SANS 17025 standards.

#### **2.1.2 Applicability**

This document shall apply to Camden Power Station Generation Division.

#### **2.1.3 Effective date**

This document shall be effective on the date of authorisation.

### **2.2 Normative/Informative References**

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

#### **2.2.1 Normative**

[1] ISO 9001 Quality Management Systems

[2] ISO 45001:2018 Occupational health and Safety Management Systems

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- [3] ISO/IEC 17020, General requirements for the competence of testing and calibration laboratories
- [4] ISO/IEC 17025:2005, General requirements for the competence of testing and calibration laboratories.

### **2.2.2 Informative**

- [5] Occupational health and Safety Act 85 of 1993, Asbestos Abatement Regulations, 2020, as framed under the OHS Act.
- [6] Regulations for the prohibition of the use, manufacturing, import, and export of asbestos and asbestos-containing materials, GNR 341 of 2007.
- [7] HSG248: Asbestos: The analysts' guide for sampling, analysis, and clearance procedures of the Health and Safety Executive of the United Kingdom, as revised from time to time.
- [8] SANS 17025: General requirements for the competence of testing and calibration laboratories.

## **2.3 Definitions**

**Asbestos:** Any of the following minerals: grunerite (amosite), chrysotile, crocidolite, fibrous actinolite, fibrous anthophyllite, and fibrous tremolite, or any mixture containing any of these fibrous silicates.

**Asbestos clearance certificate:** A written document verifying that the regulated asbestos fibre concentration in the air meets the clearance indicator.

**Asbestos client:** Any person for whom asbestos work is performed.

**Approved plan of work:** A written site-specific methodology as contemplated in Regulation 15 (AAR) that is at least co-signed by the asbestos client, registered asbestos contractor, and approved inspection authority.

**Asbestos dust:** Airborne or settled dust that contains, or is likely to contain, regulated asbestos fibres.

**Asbestos inventory:** Document used for the recording of all asbestos and ACM in the area of responsibility. The asbestos inventory and asbestos phase-out plan refer to the same document, i.e. Eskom Asbestos Inventory and Phase-out (Template).

**Asbestos phase-out plan:** An authorised management plan that directs the timely removal of asbestos products and ACM from Eskom-owned areas in a formalised manner to ensure total phase-out by the set due date.

**Asbestos Approved Inspection Authority (AAIA):** An asbestos inspection authority accredited by the chief inspector of the Department of Employment and Labour with respect to the due service only.

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**Audit:** A planned, independent, and documented assessment process to determine whether agreed upon requirements are in conformance with requirements; for example, to SANS 17020, SANS 17025 an audit of the Occupational Hygiene AIA.

**Clearance indicator:** The measured airborne concentration of regulated asbestos fibres is less than 0,01 fibres per millilitre (f/mℓ) as measured in accordance with HSG248 or an equivalent method.

**Competent:** means a person who has in respect of the work or task to be performed the required knowledge, training and experience and, where applicable, qualifications, specific to that work or task: Provided that where appropriate qualifications and training are registered in terms of the provisions of the National Qualification Framework Act, 2000 (Act No.67 of 2000), those qualifications and that training must be regarded as the required qualifications and training; and is familiar with the Act and with the applicable regulations made under the Act.

**Eskom:** refers to Eskom Camden Power Station.

**Environmental air monitoring:** Includes static air monitoring for regulated fibres conducted downwind from outdoor type 2 asbestos work or outside asbestos enclosures where type 3 asbestos work is performed or in any area where there is the potential for asbestos contamination.

**HSG248:** Health and Safety Guidance 248: Asbestos – The analysts' guide for sampling, analysis, and clearance procedures, published in 2005, or the latest update.

**Partner/Contractor:** a person or firm that undertakes a contract to provide materials or labour to perform a service or do a job at Eskom.

**Regulated asbestos fibre:** An asbestos particle with a length-to-diameter ratio greater than 3 to 1, a length greater than 5 µm (micrometres or microns), and a diameter of less than 3 µm.

**Monitoring:** a continuing program of observation, measurement, and judgement.

**Non-Conformance:** Failure to meet or fulfil a specific requirement.

**Occupational Hygienist (ROH):** a person by virtue of his training in occupational hygiene hazard measurement /techniques is certified competent by the Eskom AIA, to carry out occupational hygiene monitoring and is registered with SAIOH as Occupational Hygienist.

**Occupational Hygienist (ROHT):** a person by virtue of his training in occupational hygiene hazard measurement /techniques is certified competent by the Eskom AIA, to carry out occupational hygiene monitoring and is registered with SAIOH as Occupational Hygiene Technologist.

**Occupational Hygiene Assistant (ROHA):** a person by virtue of his training in occupational hygiene hazard measurement /techniques is certified competent by the Eskom AIA, to carry out occupational hygiene monitoring and is registered with SAIOH as Occupational Hygiene Assistant.

**Occupational Exposure Limit (OEL) for asbestos:** A limit value of 0.1 regulated asbestos fibres per millilitre of air, averaged over any continuous period of four hours, measured in accordance with HSG248.

**Sampling:** a process consisting of the withdrawal or isolation of a fractional part of a whole.

**Sampling Media:** a substance or material used to collect/ capture samples from atmosphere and surfaces.

**Sampling Train:** The order of sequence in which personal health sampling equipment parts are assembled to complete the cycle of assimilated breathed atmosphere that a person is exposed to during the working time.

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**Short-term exposure limit** - A short-term exposure limit of 0.6 regulated asbestos fibres per millilitre of air, measured over a continuous 10-minute period.

**South African National Accreditation System (SANAS):** the sole national accreditation body for conformity assessments in South Africa.

**Sub-contractor:** a firm or person that carries a portion of a contract from the principal contractor or from another subcontractor.

**Verification:** the process of confirming the accuracy and representativeness of any measurement results by means of independent examiner or demonstration of any statement, procedure, program, figures, calculations, and references by an accredited party.

**Workplace:** Any physical location in which work related activities are performed under the control of the organisation

## **2.4 Abbreviations**

<b>Abbreviation</b>	<b>Explanation</b>
AAR	Asbestos Abatement Regulations
ACM	Asbestos-Containing Material
ACP	Asbestos Cement Product
AAIA	Asbestos Approved Inspection Authority
A&F	Assurance and Forensic
AL	Action Level
BU	Business Unit
f/ml	fibres per millilitre
ISO	International Organization for Standardization
OH	Occupational Hygiene
OHS Act	Occupational Health and Safety Act 85 of 1993
OU	Operating unit
PPE	Personal protective equipment
PCM	Phase contrast microscopy
RA	Risk assessment
RAC	Registered asbestos contractor
RPE	Respiratory protective equipment
R&S	Risk and Sustainability
SAIOH	Southern African Institute for Occupational Hygiene
SANAS	South African National Accreditation System
SANS	South African National Standards
SEG	Similar exposure group

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## **2.5 Roles and Responsibilities**

### **2.5.1 The Client (Camden Power Station)**

- Contact the contractor for service required as per the scope of work.
- Manage the contract and ensure that work is carried out as per the issued scope of work.
- Monitor contractor compliance to legal and other requirements.

### **2.5.2 The Contractor/Supplier (Asbestos Approved Inspection Authority)**

- To comply with the contract requirements and deliver a quality service to Eskom Camden Power station.
- To comply with any requirements stipulated in the scope of work including the turnaround time for the report.
- To comply with the terms and conditions as stipulated in the contract.
- To respond in a timeous manner (as and when required by the client, including weekends).

## **2.6 Process for Monitoring**

Compliance to this document shall be verified via internal audits.

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### **3. Scope of work**

#### **3.1. General requirements**

The scope of work will cover the following but not limited to, for a period of **12 months**:

- Conducting of Asbestos monitoring as per **Regulation 16** of the Asbestos Abatement Regulations, including environmental air monitoring for type 2 and type 3 asbestos work.
- Counting of Asbestos samples (personal and environmental/static samples) by phase contrast microscopy. Counting to be done by an ISO 17025 accredited laboratory.
- Issuing a report after counting Asbestos (for personal and environmental/static samples).
- Issuing a clearance certificate as per **Regulation 22** after completion of monitoring.
- Completion of detailed sample analysis/counting report within the agreed timelines.
- Turnaround time for Asbestos counting/bulk sample report is less than 24 hours.
- Conducting of Asbestos monitoring as and when required, including weekends.

#### **NB. Asbestos monitoring required as per the nature of business:**

***The Approved Inspection Authority must ensure that an analysis report is made available to Camden Power Station within 24hrs after analysis.***

The following scenarios occur at Camden Power station throughout the year:

1. Response to EMERGENCIES (unit shut down) – no planning.
2. Outages – work will be planned accordingly.
3. Planned weekend maintenance – no proper planning.
4. Standby – emergency work due to boiler tube leaks (no planning).

Camden power station operate 24 hours and the Approved Inspection Authority is required to be available for Asbestos Work (i.e., Asbestos air monitoring during Asbestos removal work) and analysis as and when required, including on weekends.

Samples to be collected from the station on the same day of sampling/monitoring. In cases where samples are collected during the night shift samples to be transported from Camden to the laboratory for analysis the following morning.

***The Approved Inspection Authority needs to take note of the scenarios (1 – 3 above). Special attention for Emergency (Where a unit can break down) and planned emergency work for weekends as it will be critical. Outage work is planned.***

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### **3.2. Accreditation requirements**

The supplier must be approved by Department of Employment and Labour as an Approved Inspection Authority for Asbestos or have an agreement with a Department of Employment and Labour as an Approved Inspection Authority for Asbestos (SLA/mutual agreement) and must use only SANAS 17025 accredited laboratory and to satisfy the needs of Camden Power Station as specified in this scope of work.

Such an Approved Inspection Authority needs to be accredited by SANAS as Inspection body for workplaces as per ISO 17025.

### **3.3. Service to Eskom Camden Generation Division**

Communication should be maintained throughout the work. The Approved Inspection Authority should inform the Camden Power station contract manager of any delays or major deviations in the performance.

### **3.4. Complaints**

The Asbestos Approved Inspection Authority appointed shall have a policy and procedure for the resolution of complaints received from Eskom or other parties. Records shall be maintained of all complaints and of the investigations and corrective actions taken by the laboratory.

### **3.5. Improvement**

The Approved Inspection Authority shall continually improve the effectiveness of its management system using the quality policy, quality objectives, audit results, analysis of data, corrective and preventive actions, and management review.

### **3.6. Corrective action**

The Approved Inspection Authority shall establish a policy and a procedure and shall designate appropriate authorities for implementing corrective action when nonconforming work or departures from the policies and procedures in the management system or technical operations have been identified. The procedure for corrective action shall start with a root cause investigation, selection and implementation of corrective actions, Monitoring of corrective actions.

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### **3.7. Prevention action**

Needed improvements and potential sources of nonconformities, either technical or concerning the management system, shall be identified. When improvement opportunities are identified or if preventive action is required, action plans shall be developed, implemented, and monitored to reduce the likelihood of the occurrence of such non-conformities and to take advantage of the opportunities.

### **3.8. Accommodation and environmental conditions**

The Asbestos Approved Inspection Authority Laboratory facilities for testing, including the environmental conditions, shall be such as to facilitate correct performance of the tests.

### **3.9. Results turnaround time**

The Asbestos Approved Inspection Authority shall honour the agreement with Eskom by adhering to the turnaround time specified. The Asbestos Approved Inspection Authority shall notify the Eskom contract manager of any occurrence that may possibly result in a delayed report time resulting in failure to comply with the turnaround time of 24 hours. Turnaround time shall form part of KPI for the Approved Inspection Authority and failure to meet the KPI will result in NCR.

### **3.10. Reporting the results**

**Each report shall include at least the following information:**

- a) Title, e.g., “Test Report”, or “Report of Results” or “Laboratory Results”;
- b) Name and address of laboratory, location where the analysis was carried out, if different from the address of the laboratory, and name and phone number of contact person for questions;
- c) Unique identification of the report (such as serial number) and of each page, the total number of pages, and a clear identification of the end of the report;
- d) Name and address of customer, where appropriate, and project name if applicable;
- e) Description, condition, and clear identification of the analysed samples;
- f) Date of receipt of the sample(s);
- g) Identification of the validated analytical method used;
- h) Any deviations from, additions to, or exclusions from the analytical method, and any other information relevant to a specific analytical method, such as environmental conditions including the use of relevant data qualifiers;
- i) Identification of the standard(s) or specification(s) relevant to the test (when required by customer);
- j) Analytical test results, supported by tables, graphs, sketches, and photographs as appropriate, with units of measurement; and any failures identified; and identification of the quantitation limit and reporting units (such as mg/kg with identification of whether data is calculated on a dry weight or wet weight basis);
- k) A signature and title, or an equivalent identification, of the person(s) accepting responsibility on behalf of the laboratory for the content of the report (however produced), and date of issue.

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#### **4. Acceptance**

This document has been seen and accepted by:

<b>Name</b>	<b>Designation</b>
N/A	N/A

#### **5. Revisions**

<b>Date</b>	<b>Rev.</b>	<b>Compiler</b>	<b>Remarks</b>
April 2024	01	Mathibedi	New Document

#### **6. Development Team**

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

- a) Manare Mapeka
- b) Ntshuxeko Mabunda
- c) Koketso Mathibedi

#### **7. Acknowledgements**

N/A

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