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Title      **Replacement of the 600m Ash  
Dump Dust Suppression  
Pipeline-Scope of Work at  
Kendal Power Station**

Alternative Reference Number      **N/A**


Area of Applicability      **Kendal Power Station**

Documentation Type      **Scope of Works**

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DISCLOSURE**

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## a) C3: Scope of Work

### 1.1 INTRODUCTION

The current dust suppression system in the ash dump is not efficient due to numerous leaks and failures in the system. The use for galvanized pipes has been identified as one of the reason of failures in the system. Kendal power station has opted to upgrade the system and phase out galvanize pipes and replace with HDPE. The first phase of replacing the galvanized line with HDPE is currently in progress.

A HDPE 600m line is required for the second phase. A Contractor is required to supply and install a 600m HDPE system which will comprise of both sprays and cannons required to control the dust in ash dump and maintain the prescribed limit.

### 1.2 ENGINEERING AND THE CONTRACTOR'S DESIGN

#### 1.2.1 Description of the *works*

The scope of work entails the supply and installation of a 600m dust suppression HDPE pipeline to replace the existing galvanised line. The line will be installed in accordance with the existing dust suppression layout.


#### 1.2.2 Work to be performed by the *Contractor*

This project is for supply and installation of a HDPE dust suppression line to replace the existing galvanised. The installation will in accordance with the existing layout.

- a) The *Contractor* is required to submit a detailed method statement with the tools and equipment for the replacement of the existing 600m galvanized pipeline and replaced with a new HDPE line.
- b) The contractor is required to submit a technical proposal. The proposal must detail the proposed system that will meet the requirement outlined in **section 1.2.2 c)**. The proposal must also include the technical specification, technical performance, operational methodology, and maintenance philosophy of the system.
- c) The new 600m dust suppression system must meet the following operational requirements:
  - o 200mm HDPE pipeline must be utilised
  - o Pressure rating 1000kpa
  - o A dual system comprising of both sprays and cannons
  - o The system must spray be able to a spray a full circle (360°)
  - o A minimum spray radius of 50m for the cannons
  - o A minimum space of 100m between the cannons
  - o The system must be operated both manually and remotely
  - o The system must have a fully automated capability
  - o Must deposit a minimum of 8mm/day
- d) The new line must interface into the existing system.
- e) The new equipment must not impact negatively on the existing system.
- f) The *Contractor* verifies all dimensions on site.
- g) The *Contractor* shall provide security for protection of machines and equipment.

#### 1.2.3 Temporary Works

The *Contractor* designs all temporary support work necessary to execute the works in accordance with the applicable codes and standards.

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All temporary works designs where supported of the existing structure are submitted to the *Employer* for review and acceptance

The *Contractor* takes note that review and acceptance of any document/ drawing/ design calculations by the *Employer* in no way relieves the *Contractor* of his liability for the works. The *Contractor* remains liable for all works conducted as per this scope


#### 1.2.4 List of specifications and standards:

During the construction of the works the *Contractor* must adhere to, as a minimum, the following specifications during the implementation of the works

- a) Construction Regulations

#### 1.2.5 Documentation required

- a) The *Contractor* provides the *Employer* with a detailed method statement for the entire works, for review and acceptance prior to commencement. The method statement takes into account the requirements of the Occupational Health and Safety Act (No 85 of 1993) and Construction Regulations, 2014
- b) Quality Control Plan for review and input of *Employer* intervention points
- c) Data books are submitted upon completion, for review and acceptance by the *Employer*. This must include, but not limited to, the following
  - o Document List
  - o Instruction for Work/Purchase Order
  - o Approved ITP
  - o Approved Drawings
  - o Fabrication Drawings
  - o Material Certificates
  - o Weld Map
  - o Weld Matrix Sheet
  - o Weld Sequence
  - o Welding Consumables Certificates
  - o Welding Procedure
  - o Welders' Qualifications
  - o ESKOM approved NDT *Contractor*
  - o Approved NDT procedure
  - o NDT Technician Qualifications
  - o NDT Reports / Results
  - o Certificate of Manufacture
  - o Inspection Reports
  - o Corrosion Protection Consumables Certificates
  - o Calibration Certificates

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- Notifications
- Modifications
- Concessions
- Non-conformance reports
- Internal Release Notes
- Transport notifications
- Method statements and specification adhered to
- Risk assessments
- TQ's, ER's and communication with *Employer*
- Rigging studies
- QCP's

## 1.3 CONSTRUCTION

### 1.3.1 SHEQ Requirements

#### 1.3.1.1 Requirement for the Detailed Risk Assessment

The *Contractor* shall compile a detailed Risk Assessment and submit to the *Project Manager* for the approval. The Risk Assessment should cover all the activities that shall be conducted by the *Contractor* during the *Works* execution stage. The *Contractor* shall prove the risk identified with its aggravating factors and mitigating factors and this to be presented to the *Employer*.

#### 1.3.1.2 Quality Requirements

The *Contractor* shall comply with the ISO 9001 2008 Quality Management System and Employer's Quality Requirements as specified in Eskom QM58 document

- a) Quality documents for inspections and tests plans shall be required to be submitted to the Project Manager for approval before the works begin on site


#### 1.3.1.3 Health, Safety and Environment (SHE)

The *Contractor* must comply with the following standards and SHE

- a) Eskom SHEQ policy 32727
- b) SHE requirements for Eskom commercial process
- c) Adhere to the OHS Act 85 of 1993
- d) Adhere to Eskom lifesaving rules
- e) All staff will undergo Safety Induction, presented by *Employer's* Risk Management Department
- f) *Contractor* must obtain a permit and adhere to the permit to work system used at Kendal Power Station before carrying out any work

Kendal Power Station is ISO 14001 2004 certified therefore the *Contractor* must comply with the requirements of the following procedures

- a) Waste Management Procedure \*1024102
- b) Environmental non-conformities, corrective and preventive actions \*1015684
- c) Emergency preparedness plan \*1015702
- d) Environmental competency, Training and awareness\*1015689

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e) Eskom SHEQ Policy (32-727)

The above mentioned procedures will be given to the appointed *contractor* before the commencement of the project. The procedures must always be available in the file and must be communicated with the *Contractor's* employees. Proof of communication must be kept in the file.

Kendal procedures are applicable to the *Contractor's* area of responsibility to assist the *Contractor* and his or her employees to prevent pollution and comply with legislative requirements and to familiarize themselves on such procedures within 30 days from the date of commencement of work at Kendal. Copies of the above-mentioned documents shall be obtained from the Eskom Agent and / or Environmental Officer on the first day prior to commencement of work at Kendal.

The *Contractor* must identify all Environmental aspects and impacts related to his or her activities. The *Contractor* must have copy of the legal register related to the scope. The non-adherence to the rules will result in a non-conformance, hence immediate termination of the contract. Rules are as following:

- a) Arrange for sufficient storage containers, labelled depicting general or hazardous waste and store in a designated storage area as per the Kendal waste management procedure \*1024102
- b) Ensure that all waste (Hazardous and General) is stored as per the Kendal waste management procedure \*1024102
- c) Ensure compliance with the general good housekeeping practices
- d) Report all Environmental Incidents before the end of the shift or within 24hrs as per the Environmental non-conformities, corrective and preventive actions \*1015684