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Eskom Holdings Limited Reg. No: 2002/015527/06

PROJECT ADMINISTRATIONAL INFORMATION:

DATE

September 2022

Project ID:

Welkom Sector Asbestos Trench covers
replacement

ENQUIRIES

Planner:

Lesego Letong

☎ 051 4045731

Please give feedback within two weeks (14 days) of the date of this document.

1. PROJECT SUMMARY

1.1. Short description of the preferred project

Remove asbestos trench covers and replace with new trench covers (Contractor shall carefully remove, transport, and dispose of the existing asbestos cable trench covers at a registered asbestos disposal site). **NB:** It is to be noted that at no time the trench cover holes must be left open. If due to unforeseen circumstances the trench covers must be left open, it must be demarcated, and an open trench covers sign placed at the site.

1.2. Benefits to Eskom:

- The requirements for compliance with the provisions of the Asbestos Abatement Regulations, 2020, framed under the Occupational Health and Safety (OHS) Act 85 of 1993.
- Provide a safe and healthy working environment for the personnel
- Providing system integrity and security of supply to the customers in the specific area of supply.

1.3. Consequences if project is not implemented:

- Personnel will continue to be exposed to asbestos effects.
- Noncompliance to the requirements for compliance with the provisions of the Asbestos Abatement Regulations, 2020, framed under the Occupational Health and Safety (OHS) Act 85 of 1993.

2. BACKGROUND INFORMATION

2.1. Refurbishment

Asbestos is a term used for the fibrous forms of some naturally occurring silicate minerals which have been exploited commercially for their useful properties of flexibility, high tensile strength, incombustibility, low thermal conductivity and resistance to chemical attack. Exposure to asbestos can lead to asbestosis which is the thickening/scarring of the lung; it can also lead to increased risk of lung cancer.

The statutory limit for asbestos fibre exposure is regulated by the asbestos regulations promulgated under the Occupational Health and Safety Act, 85 of 1993. The asbestos regulations prohibit occupational exposure to asbestos fibres more than 0.2 regulated asbestos fibres per milliliter of air over a period of 4 hours. A regulated asbestos fibre is a particle of asbestos with a length to diameter ratio greater than 3 :1, a length greater than 5 micrometers and diameter not less than 3 micrometers.

Eskom's strategy is to phase out asbestos as soon as possible but not later than November 2033. All owners of asbestos containing materials and equipment are required to have a plan on the phasing out of asbestos. Where there is immediate risk, asbestos should be removed and replaced by non-asbestos containing material or as part of normal maintenance.

3. NEEDS OR TRIGGER FOR THE PROJECT

3.1. Internal reasons: REFURBISHMENT

3.1.1. Environmental

- Besides personal health, asbestos has a negative impact on the environment. A study presented in 2006 at the international conference Health, The Environment and Justice found that asbestos dust can easily travel through the air into the water supply. It can also settle on the surface of the soil instead of getting absorbed into the ground, which means that it can still get picked up by the wind and inhaled into human lungs.
- The study found that countries with a history of production and consumption of asbestos showed high incidence levels of asbestos-related diseases and pronounced levels of asbestos particles in the environment. This shows that asbestos can pose significant risk even after it has been banned in the countries featured in the study.

3.1.2. Management Strategies

- Eskom's strategy is to phase out asbestos as soon as possible but not later than November 2033. All owners of asbestos containing materials and equipment are required to have a plan on the phasing out of asbestos. Where there is immediate risk, asbestos should be removed and replaced by non-asbestos containing material or as part of normal maintenance.

3.1.3. Conditions/compliance

- The asbestos is now brittle and prone to be airborne to the detriment of the personnel working in and around the substations.
- 32-303- Asbestos Management
- The Asbestos Abatement Regulations, 2020, framed under the Occupational Health and Safety (OHS) Act 85 of 1993.
- Eskom Asbestos procedure 32-303

3.1.4. System Operations Requirements

- None

3.1.5. Safety

- Eskom personnel safety and health are in danger.
- Safety of the electronic equipment is compromised.
- Noncompliance to environmental statutory requirements
- Noncompliance to Eskom Civil standards.

4. VALIDATION OF NEEDS AND TRIGGERS



Asbestos trench covers



Current condition of the trench covers

5. SITE VISIT INFORMATION

5.1. This information is what was found on site.

- Some of the trench covers are broken although they are concrete slabs.
- Some of the asbestos trench covers are not in place of the trench covers, they are lying in around the substation.
- Some other trench covers are asbestos and broken and trench covers are filled with sand.

6. PROPOSED ALTERNATIVES

6.1. Technical

This paragraph contains all the technical information surrounding the different alternatives that was considered during the planning proposes.

6.1.1. **Alternative 1: Do Nothing**

Comments:

- Safety and health standards will remain compromised.
- Noncompliance to the latest environmental legislation will remain.

6.1.2. **Alternative 2: Remove asbestos trench covers and replace with new trench covers**

- Remove asbestos trench covers and replace with new trench covers
- Manufacture the single cable trench covers as per the Eskom specification

Comments:

- A safe and healthy working environment for the personnel will be provided
- System integrity and security of supply to the customers in the specific area of supply will be ensure.
- Target to eradicate the asbestos from all the sites of Eskom will be achieved

6.2. Land Development and Environmental

- Generic EMP will be conducted

6.3. Technical Evaluation

- It is a valid alternative, because it addresses the needs to ensure a safe and healthy environment to the personnel.
- Protection and safe environment will be provided.

7. APPROVAL

Refurbishment Planner: Lesego Letong


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Refurbishment Senior Engineer: Lebo Lephoi


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Plant Manager: Moeketsi Mathosa


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8. Detailed Project Scope

The contractor will be required to perform the following:

- Visit **SAR Vetrivier, SAR Theron, SAR Welgeleë, SAR Kalkvlakte, SAR Henneman, Duiker DS, Witpan DS, Merriespruit Three, Oryx, Saaiplaas Water Works, Virginia Terminal DS, Anglodankbaarheid, Angloerfdeel, Brand Gold, Sand River Pumps, Brand Five, Anglo Geduld, Grootkop DS, Freguls Five, Euclid DS, St Helena Reduction, Riebeeckstad, Holdings Four, Giraffe and Port Allen** substations to take the measurement of the trenches.
- Supply and install the trench covers as per the Eskom specifications.
- Contractor to refer to drawings and Standard trench covers Details (D-DT-5254)
- Transport the trench covers to the substation.
- Remove asbestos trench covers and replace with new trench covers. NB!! It is to be noted that at no time the trench cover holes must be left open. If due to unforeseen circumstances the trench covers must be left open, it must be demarcated, and an open trench covers sign placed at the site.
- Dispose of asbestos trench cover at registered dump site. A copy of the disposal certificate is to be sent to the project manager.