ENVIRONMENTAL MANAGEMENT PLAN

Environmental Management Plan for:

Rouxville Substation 10MVA 66/22kV transformer bay with 2x33kV feeder bays (revision3)

NW-STM-1606-2731-00001

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1. Introduction

As part of Eskom's strategy to protect the environment through the sustainable management of its activities, it is required that an Environmental Management System (EMS) be developed and implemented. Part and parcel of the EMS is the development and implementation of environmental management programmes (EMPs) according to EPC 32-248. These programmes are essentially plans of action which outline how activities that have the potential to have negative impacts on the environment will be managed and monitored as well as how areas that were affected will be rehabilitated.

This particular Environmental Management Plan (EMP) is aimed at identifying negative environmental activities and any proposed management, mitigation, protection or remedial measures that will be undertaken to address the environmental impacts that have been identified with regards to activities associated with the *Rouxville substation 10MVA 66/33kV transformer bay with 33kV feeder bays project* as per Section 24N (2) of National Environmental Management Act 107 of 1998 on integrated environmental management.

Recommendations are made on management and monitoring of such activities in order to "maximise the benefit and minimise the damage" to the environment. The content of this document will also outline the monitoring and management recommendations related to the life cycle of the project's activities in order to ensure that minimal environmental damage is caused and where possible avoid any negative impacts.

2. Terms of Reference

The development of the Environmental Management Programme is in accordance with the Eskom EMP procedure EPC 32-248. In reference to it, EMPs developed and implemented need to take into consideration all significant environmental issues and they are to be included in the document. Furthermore, an EMP must be carried out in terms of the relevant line division's Environmental Management System. This is applicable to all of Eskom's future and present servitudes as well as to projects for which an environmental impact assessment (EIA) or environmental screening was done.

The Environmental Management Programme Procedure EPC 32-248 complies with national environmental legislation such as the National Environmental Management Act (NEMA) act 107 of 1998 under which the provision for EMPs is made in **Section 11: Environmental Implementation Plans and Management Plans**. In compliance with the above mentioned requirements, an EMP has to be developed for Rouxville 66/22kV substation transformer bay project.

3. Property Details

Property Name: Rouxville 66/22kV substation

Local Municipality: Mohokare Local Municipality in Xhariep District Municipality

4. Scope of work

This EMP is developed in consideration to the following activities outlined in the scope of work as follows:

Primary Plant:

- Extend the 66kV busbar
- Install a 66/22kV 10MVA transformer bay
- Install 2 x 22kV feeder bays
- Install 66kV isolator on the existing 66/11kV transformer
- Build a control room next to the existing control room
- Normalize the existing 22kV busbar

Civil works scope

Access Roads:

Access Road1 will start at the edge of the existing proclaimed gravel road and continue to the south western boundary substation access gate. Access Road 2 will start at Chainage 0+192.830 of Access Road 1 and will continue around the substation to the existing substation access gate and control room on the south eastern side of the substation.

The roads shall be 4.0m wide with a 3.0% crossfall to one side of the road. The direction of fall shall be towards the side with the high natural ground level (NGL).
The road layer works shall include insitu road bed preparation after the stripping of topsoil and "clear and grub" activities along the plan road routes. The road layer works shall be constructed, a G5 selected subgrade layer and a G5 gravel wearing course. G7 Fill layers shall also be required in areas in fill to below the selected subgrade and wearing course layers.

Stormwater Drainage and Management:

The road cross section shall include a trapezoidal shaped side drain for areas in cut to ensure that the road layer works remain dry and free draining. The side drain shall be an earth lined drain. These side drains shall be graded to ensure that water will be directed towards the culvert inlets.
Two pipe culverts shall be constructed along the Access road 1 route. Refer to the layout and long section drawings for a reference chainage at which the culverts shall be constructed. The pipe culverts shall be constructed using 225 mm diameter (nominal diameter) 100D pre-cast concrete pipes. To take note is that the final culvert location and orientation can be changed to suite the final conditions onsite. This shall be done in consultation with the Project Engineer. The new culverts shall be constructed complete with concrete inlet and outlet structures as per the detailed drawings.

The inlet and outlets of each culvert shall be stone pitched with Type 1 Stone Pitching (Plain Pitching) to ensure effective erosion protection at the culvert outlets. Some “day-lighting” at the culvert outlets may be required to ensure that the culverts drain storm water runoff freely.
An earth berm shall be constructed of G7 material covered with topsoil and established vegetation. This berm shall be constructed “upstream” of the substation to intercept storm water runoff and direct water around the substation.
“Mitre banks” shall also be constructed along the left-hand bottom of fill of Access Road 1 to direct water away from the fill “toeline”. The positions of the “Mitre banks” shall be placed at positions finalized on site in consultation with the Project Engineer.

Substation and Fencing Works:

A new boundary fence gate shall be installed at the start of the gravel Access Road no 1 Refer to the Project drawings for an exact position. This position may, however be changed after consultations with the property owner. This gate shall be installed complete with a concrete gate ramp. Refer to the detailed drawings for more information. The existing substation security fence diamond mesh shall be completely removed and replaced with a new diamond mesh fence as per the detailed drawings and specifications. All the existing gates shall be replaced as scheduled and a new 5.0m double leaf gate shall be installed on the south western fence to allow access to the substation stone transformer runway.

The existing internal substation fence shall be completely replaced with the new diamond mesh fence as per the detailed drawings.
All the substation yard stone shall be replaced with new yard stone to the required depth as detailed. Herbicide shall be applied to the substation terrace prior to the placement of the imported yard stone.
The existing substation cable trench covers are asbestos type covers. Theses shall be removed in accordance with the relevant OHS required standard for working with existing asbestos containing materials and disposed of accordingly. New concrete type trench covers shall be installed on the existing cable trenches.
The existing stone verge kerbing shall be completely removed and disposed of. The kerb line shall be relocated to the require 1.2m from the fence line. Minor earthworks shall be required to fill and the adjacent natural ground to the same level as the substation terrace using G5 material. New pre-cast concrete kerbs shall be installed in the correct position, prior to the spreading and levelling of new yard stone.

New cable trenches shall be constructed on the MV side of the substation, as per the detailed drawings. Refer to the substation General Arrangement drawings for detailed positions of the new cable trenches.
A new concrete plinth and bunded area shall be constructed for the new HV feeder bay. This shall be done as per the project and detailed drawings.

Control Room Extension:

The existing control room shall need to be extended to accommodate the new control plant panels to be installed inside the building. The building extensions shall be 4.747m long x 5.191m wide in a southern direction. The new building façade is to match that of the existing building. The exiting foundation shall be extended, utilizing the same dimensions, for the extent of the building extension.

Brick walls shall be of the same design and type as that of the existing building. No extensions shall be made to the existing cable trenches in the building and new cable ladders shall be installed in the extension and continue vertically into the existing cable trenches to facilitate cable installation in the building extension. The new control plant panels to be installed shall be top entry panels. The existing windows and ventilation ducts shall be built-up and shut using the same brick wall construction as that of the existing building to prevent unauthorised access and lessen dust contamination in the building. The power and lighting installation shall be extended to include the new building extension. Sufficient lights shall be installed to ensure ample task lighting is provided in the building extension, as pre the requirements of the detailed drawings.

The walls shall be plastered inside and outside and then primed and painted with a durable paint finish. The roof shall be extended using the same roof structure design. The roof structure design shall be provided to a reputable roofing designer or supplier which shall confirm the design as suitable for the new extension prior to the construction of the roof. The roof sheeting shall match that of the existing building. A new roof gutters shall be installed on the lower side of the roof slope to drain run-off from the roof. The existing ceiling shall be completely removed and a new ceiling shall be installed to cover the entire building. The ceiling shall be insulated as detailed.

To note is that an existing column foundation will need to be demolished and disposed of and earthworks reinstated prior to the construction of the building extension. This foundation shall obstruct the building extension and thus the demolition of the concrete.

Pest Removal:

The existing building has a serious bee infestation which shall need to be removed from the existing walls and the ceiling cavity prior to any construction activities taking place. Once the infestation has been removed, repairs to the walls and roof will be done in order to prevent such a future infestation to the building.

5. Identified Environmental elements on site and surrounding area (must be read in conjunction with EMP register):

ENVIRONMENTAL ELEMENT (S)	DESCRIPTION(S)
5.1 Current Land-use surrounding the area:	**Rouxville 66/22kV substation is situated on the outskirts of the town on an open piece of grassland.**  **Figure 1: Substation location in relation to surrounding environment**
5.2 Topography (Open veldt/ valley/ flowing landscape/ steep slopes):	The substation is located on an open grassland area. The topography of the area is relatively flat within undulating terrain

ENVIRONMENTAL ELEMENT (S)	DESCRIPTION(S)
5.3 How far is the proposed operation from open water (waterbodies)?	The closest water body is a dam which is located a distance away towards the back of the substation. The activities associated with the scope of works pose a minimal risk to any water bodies.
5.4 Sanitation system/ toilet facilities present or to be present on site	Chemical toilets to be utilised during the course of construction
5.5 Heritage resources present in and around the proposed site	There are no historic significant features in close proximity to Rouxville 66/22kV substation that could be observed.

6.High risk environmental aspects

This section highlights the environmental aspects associated with the project that are considered to pose a higher environmental risk. The guidelines included here should be read in conjunction with all other aspects, impacts and mitigation measures outlined in the EMP register that can be found in section 7 of this EMP.

6.1 Oil

It is recommended that the **PCB status of all oil containing equipment be established before removal.** If confirmed PCB, the environmental section (SHEQ's department) to be contacted: Benito Williams (051) 404 2983 or Winnie Sebogodi (051) 404 5336

Non-PCB oils can be disposed of at a registered Class H: H hazardous waste site. Records of quantities disposed, disposal sites, disposal dates, transporters used & safe disposal certificates must be kept and copies submitted to the Environmental section after project completion.

- ***All oil containing equipment must be labelled indicating its PCB status. NB:Please note that no PCB oil should be sold***

- **Emergency plans must be arranged prior to transportation of oil filled equipment**. Information on travel routes, emergency services numbers along route, oil spill clean-up consultants contact information must be available and easily accessible etc. The supplier used to transport hazardous material should provide the Eskom representative with proof of such an emergency plan

- **Vehicles used for transportation must be road worthy** and also **free of any oil leaks.** During transportation, speed limits and all traffic signs must be adhered to and ideally equipment to be transported in drip trays should they have potential to leak.

- **Oil spills must be reported** according to the Procedure for the effective Management of safety, health and environmental related incidents EPC 32-95 and the Environmental incident management procedure **240-133087117**. Records of all oil spills that occurred on site to be kept in the environmental file on site.

- All oil spills need to be assessed and rated according to the latest *Hydrocarbon spill assessment table 240-440 47082* which will provide guidance on the appropriate corrective action to be taken. A copy of this assessment table is available as an appendix to this EMP and can also be requested from the environmental officer responsible for the project. All completed assessment tables/forms to be kept in the environmental file on site

- **A sufficiently equipped oil spill kit should be kept on site** during construction and in vehicles transporting oil filled equipment. Personnel should be trained on the usage of oil spill kits.

- For major oil spills an oil spill clean-up consultant should be called in, project coordinator or Clerk of works to make environmental section aware of any major oil spill on site.

(See table 1 for list of oil spill consultants as per *FSOU Environmental emergency preparedness and response procedure 240-91448362*).

Table 1: Details of oil spill clean-up consultants

Company	Contact Person	Telephone Number	e-mail address	24 Hour Spill Response
SPILL TECH	Nozipho Radebe	086 100 0366	nozipho.radebe@spilltech.co.za	0837939055

6.2 Waste

- Eskom has a waste management procedure in place that stipulates how the handling, storing and disposing of waste on Eskom sites should be conducted (EPC 32-245).
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- In alignment with this procedure and the National Environmental Management: Waste Act 58 of 2008. EPC 32-245 will apply throughout the Eskom business and its subsidiaries where Eskom has an interest in.

- A waste management plan for the site needs to be compiled by the contractor and implemented accordingly to minimize and manage waste and the associated risks in an environmentally friendly and cost-effective manner. This plan must amongst other things promote reduction of waste generation and the conservation of resources through judicious resource utilization, recycling, reuse and the disposal of waste (EPC 32-245).
- Waste on site should be managed and disposed of according to the procedures in place and good housekeeping shall be conducted on site in order to sustain the health and safety of all employees, the public and the environment.
- General waste should be disposed of at a registered landfill site. Accompanying this EMP is a registration certificate for the Rouxville waste site
- All hazardous waste such as asbestos, oil and oil contaminated material shall be disposed of a suitable Hazardous waste site.

6.3 Herbicide Application

Herbicide application on Eskom yards needs to be undertaken in line with ***Eskom Standard: Herbicide usage in Eskom Prohibited and Restricted areas, live chambers, telecommunication infrastructure yards and security fences 240-125477962*.** A copy of the standard can be obtained from the Eskom environmental officer through the Eskom Project Manager overseeing the project.

Further guidance on herbicide management can be sought from the responsible Environmental officer .

Below are general guidelines to follow as adopted from the standard.

1) <u>Herbicide selection, application and management</u>

When selecting the appropriate herbicide to be used on any vegetation, a risk assessment based on the following factors needs to be undertaken:

a) The requirements of the Fertilisers, Farm Feeds, Agricultural Remedies ad Stock Remedies Act, No 36 of 1947
b) The manufacturers specifications outlined on the herbicide container
c) Intended outcome of application eg stunting growth; eradication of targeted vegetation
d) Nature of receiving environment focussing on the following:
    i. Type of vegetation and suitability of specific herbicide for that type of vegetation
    ii. Average rainfall in catchment and/or season in which application will take place
    iii. Proximity of targeted area to agricultural land, crops, grazing land, water-sources, waterways etc
    iv. Terrain ie slope in relation to sensitive areas eg sensitive ecosystems or those listed in (iii)

v. Presence of endangered plant or animal species that could be affected

vi. Potential of soil contamination ie looking at characteristics of herbicide and susceptibility of soil type to contaminant retention

vii. Risk to livestock in the event of ingestion

2) General requirements to be adhered to

a) The purchase, use and storage of herbicides must comply with Fertilisers, Farm Feeds, Agricultural Remedies ad Stock Remedies Act, No 36 of 1947

b) A registered Pest Control Officer (PCO) must undertake the herbicide application or trained teams must operate under the supervision of a qualified PCO

c) The Material Safety Data Sheet (MSDS) of the product must be supplied by suppliers and made available in the SHEQ file of the contractor on site,

d) All instructions on the label of the product as well as the MSDS must be followed at all times

e) A record of the quantities of herbicide applied shall be kept at all times and reflected on the production sheet submitted to Eskom containing at least the following information:

i) Name of herbicide used including its active ingredient and category

ii) Herbicide concentrate volume recorded

iii) Efficacy rate of herbicide to determine frequency of repeat applications

iv) Water volume used in the case of Soluble herbicides

v) Picture of the label from herbicide container showing instructions and any warning labels

vi) Date of application

vii) Record of weather at the time of application including at least the following: air temperature, wind conditions, whether there was rain or not etc.

viii) Pictures of treated vegetation/treated area

ix) Completed Risk assessment signed off by PCO

6.4. Asbestos

The scope includes the removal of asbestos containing trench covers. Due to the environmental and health risks that asbestos poses, disposal of asbestos material needs to be undertaken by a supplier who is approved to undertake this activity. Asbestos containing material to be disposed of at a waste disposal facility registered to receive such material.

Image 1: Trench covers at Rouxville sub

Image 2: Asbestos warning signs on fence at Rouxville sub

All activities dealing with asbestos need to be undertaken in line with the *Eskom procedure 32-303 Requirements for the Safe Processing, Handling, Storage, Disposal and Phase-out of Asbestos and the National Asbestos Regulations 2001, GNR 155 of 10 February 2002, as promulgated under the Occupational Health and Safety Act 85 of 1993.*

Note the following points from the above-mentioned Asbestos Eskom procedure:

3.4.3.1 General requirements

Asbestos work will be regulated within the parameters of the OHS Directive, dated 17 July 2019, and promulgated by the Department of Employment and Labour.

The term "asbestos work" refers to any work involving asbestos, regardless of the extent of the work, where the potential exists for exposure to asbestos dust. This includes, for example, inspections or work conducted at sites where there are substandard conditions in relation to asbestos, the cleaning of asbestos roofs, the removal of seals and packing, and areas with naturally occurring asbestos. ***It also includes the removal/dismantling of asbestos-containing cement material, where asbestos containing cement products (such as roof sheets or wall partitions) are removed intact (without breakage).***

- *At least **30 days** prior to the commencement of the asbestos work, the written plan of work should be developed and submitted to an approved asbestos inspection authority (AAIA) for approval.*

- *At least **14 days** prior to the commencement of any asbestos work, every OU/BU responsible manager shall notify the relevant provincial director of the Department of Employment and Labour, in writing (either by registered mail or delivered by hand), of such work by means of an AAIA approved and signed asbestos work plan.*

- *The asbestos plan of work has to be signed by the AAIA, employer/self-employed person (for example, OU/BU responsible manager), or the mandatory of the employer/self-employed person (where the work is not performed by the employer/self-employed person).*

- *The notification must give a specific description of the asbestos work, the name of the approved asbestos contractor, the dates of the commencement and completion of the work, and the period of asbestos work (that is, the planned dates of work for the project).*

- *The minimum contents of the plan of work requirements are summarised in Appendix A of the procedure (which is Appendix B of this EMP).*
- *Copies of notification correspondence shall be kept on site for AAIA verification and auditing*

3.4.3.2 Maintenance work

If the maintenance work constitutes the disturbance or removal of the asbestos material, an asbestos plan of work shall be formulated, describing the measures necessary to ensure the health and safety of the persons at the workplace and to prevent emission of, and/or exposure to, asbestos fibres.

3.4.3.3 Demolition and asbestos work

A registered asbestos contractor (RAC), approved by, and registered with, the Department of Employment and Labour, shall conduct all asbestos work and/or the removal of any asbestos and ACM (Asbestos containing material).

In the case of removal/dismantling of asbestos-containing cement material where asbestos containing cement products are removed ***intact,*** *the services of an RAC is not required.*

3.4.3.5 Emergency response

Ensuring the containment of, and the minimised exposure of people and the environment to, asbestos fibres in emergency situations requires the following:
• The identification of potential emergencies that may result in the unplanned release of asbestos fibres
• The preparation, in advance, of emergency plans (including asbestos work plans), addressing each identified potential situation (asbestos risk) and taking into consideration the applicable legal requirements and best practices

3.4.3.6 Transportation of asbestos and ACM

Asbestos and ACM must be transported in accordance with the minimum requirements of this standard as well as in accordance with SANS 10228 and SANS 10229.

3.4.3.7 Disposal

Asbestos must be disposed of in accordance with the minimum requirements as per the Asbestos Regulations (Subregulation 20) of the OHS Act and the applicable environmental requirements, that is, the Environment Conservation Act 73 of 1989 and the National Environmental Management Act 107 of 1998.

3.4.3.8 Asbestos cement sheeting

It should be noted that reasonable caution should be taken in the handling of asbestos cement sheeting due to the inherent risk of release of, and exposure to, asbestos fibres.
Asbestos cement sheeting must be handled in accordance with the requirements of this standard aswell as the minimum requirements of the Asbestos Regulations (Subregulation 15) of the OHS Act and the OHS Directive, dated 17 July 2019 (Department of Employment and Labour).

6.5 Bee Removal

The removal of bees needs to be undertaken by personnel trained to remove bees. Before work can commence in relation to the control room roof, it is advised that a bee removal contractor be contracted to safely remove the bees first. The following are contacts of bee removal contractors that can be contacted and arrangements made for their services:

Byeboerdery - **082 572 8822**

6.6 Environmental Incidents

The procedure for the effective Management of safety, health and environmental related incidents EPC 32-95 and the *Environmental incident management procedure* ***240-133087117*** should be used for the reporting of all environmental incidents such as bird kills, vegetation destruction, oil spills, erosion, herbicide spillages etc. within 24 hours of the incident occurring or being discovered.

6.7 Training

It is important for personnel to be trained and informed regarding the content of the EMP and the activities that could be damaging the environment. *The project coordinator should notify the responsible environmental officer a minimum of 2 months prior to proposed project kick-off so that an environmental training session can be arranged for the contractor and relevant team members.*

7. EMP register for Rouxville 66/22kV substation transformer bay project

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
Pre-construction, main site establishment	Site layout and planning	Erosion, soil and water pollution	• National Water Act 36 of 1998. • National Environmental Management Act 107 of 1998 • Environmental Land Policy EPL 32-97 • Standard for passive fire protection in Distribution substation yards,	**1.** A site which has minimal impact on the immediate and surrounding environment must be selected: A preliminary investigation must be done as to the situation of this site. **2.** Aspects such as slope and distance from water bodies must be taken into consideration to minimize erosion and pollution of surface water. 3. Site camp should be located away from water bodies and other sensitive environments	Incident reports, Complaints from interested and affected parties register	Contractor and/or project coordinator	Prior to construction	
Construction	Excavations /soil stripping	Soil erosion, health and safety risk		1.All excavated soils that are stockpiled to be adequately bunded by suitable material around the entire circumference of the stockpile as an erosion control measure from wind, water and animals 2. Topsoil will be stockpiled separately from the subsoil. When re-instating or backfilling the soil the sub-soil layer will be backfilled first followed by the topsoil layer.	Signs of erosion; complaints from landowner	Contractor; Clerk of works	Construction	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				3. Topsoil that is stripped should be stockpiled separately and protected/conserved to be used for rehabilitation purposes 4. Open excavations should be covered with adequate covering and visible, sturdy barricading to prevent people or animals from falling in. These excavations should be inspected regularly. 5.Barricading should be positioned 1m or more from the edge of excavation				
	Vegetation	Destruction of vegetation	• National Biodiversity Act • Vegetation Management procedure	1.No picking/removal of any plants from site will be permitted if it's not part of bush-clearing activities 2. Vegetation clearance to be limited to footprint required for the scope activities to be accomplished 3. Re-seeding with a seedmix of vegetation indigenous to the area to be used where topsoil with an active seedbank was not available/sufficient for rehabilitation or stabilising of soil eg such as on the earth berms		Contractor; Clerk of works		

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				4. Care must be taken to not introduce alien invasive species to the area				
	Animals	Destruction of habitats; disturbance of livestock; livestock loss due to gates not being closed	• National Biodiversity Act	1.No hunting or snaring of any animals is allowed 2. Speed limits to be kept low to minimise risk of collisions with animals 3. Gates to be managed according to landowners instructions		Contractor; clerk of works		
	Surface water and/or existing water systems	Pollution of watercourses; degradation of watercourses	• Constitution of South Africa section 24 • National Water Act 36 of 1998. • National Environmental Management: Biodiversity Act 10 of 2004 • National Environmental Management Act 107 of 1998 Chapt 7 Sec 28, 30	1.Water courses should be kept free of any litter or any other form of pollution 2. No surface or groundwater may be polluted due to any activity on the site. 3. Construction must include appropriate design measures that allow surface and subsurface movement of water along drainage lines so as not to impede natural surface and subsurface flows.	Complaints register, Incident Flash report	Design engineer; Contractor; Clerk of works	Design and construction	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				4. No stockpiling is allowed in depressions or in water courses 6. No new access roads to be constructed through drainage lines and waterbodies. Only existing roads must be used. 7.The surface water resource and the associated buffer zones are to be designated as "highly sensitive". 8.No hazardous materials are to be stored or brought near watercourse areas. Should a designated storage area be required, the storage area must be placed at the furthest location from the sensitive areas. Appropriate safety measures as stipulated above must be implemented 9 .Access of all construction and material delivery vehicles should be strictly controlled, especially during wet weather to avoid compaction and damage to the soil..				

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
	Cement mixing	Soil and water contamination		1.Any cement mixing should be done on a suitable, non-permeable platform that prevents any spillage or contamination of the soil or any water body. No cement mixing is to be done on bare soil 2.Runoff from the cement/ concrete batching areas must be strictly controlled to prevent soil,vegetation or water contamination 3.Cement bags should be rinsed off with water of any cement residue and the water used in cement mixing operations. Only washed cement bags can be disposed of as general waste.		Contractor		
PCB status of oil in equipment (transformer, CT, VT, breaker and any other oil	Handling and disposal of oil	Oil pollution, Health risk	• Hazardous Chemical Substance Regulation 14 & 15 • National Environmental Management Act 107 of 1998 Chapt 7 Sec 28, 30	**1.** It is recommended that the PCB status of all oil containing equipment be established before removal where applicable. **2.** Measures must be in place to prevent oil spills e.g. use of correct & good	PCB testing records/ results, Disposal certificates, Incident flash report,	Engineer/ Planner/ Project Coordinator; Clerk of works Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
containing equipment)			• Occupational Health & Safety Act 85 of 1993 • Waste Management Procedure, EPC 32-245	condition equipment, procedures & use of trained personnel, oil catchment/bundwall area **3.** There must be spill kits and personnel trained on usage of spill kits onsite. **4.** Emergency clean-up plans must be arranged prior, should there be major spill e.g. clean-up consultants contacts established and available. **5.** Incidents must be reported as per environmental incidents procedure **240-133087117**	Oil spill Investigation report			
Disposal of insulation oil from CT, VT, breaker and any other oil containing equipment	Handling, disposal and storage	Pollution, Health and Business risk.	• National Environmental Management Act 107 of 1998 Chapt 7 Sec 28, 30 • Hazardous Chemical Substances Regulations • Waste Management Procedure, EPC 32-245	**1.** The oil must only be disposed of at hazardous disposal site registered to handle such waste. **2.** Oil to be disposed must be referred to *Commercial Department- Assets Disposal (051-404 2310)* **3.** Records of quantity, disposal site, and disposal date & names of transporters must be kept and submitted to the Environmental section after project completion. **4.** Hazardous materials identified for disposal must not be stored for more than 60 days while preparations are made for final disposal.	Disposal certificates, Records of disposal	Engineer/ Planner/ Project Coordinator, Asset disposal officer	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				5. Oil spill kits should be kept on site at all times and on vehicles that transport oil containing equipment.				
Draining of oil	Handling, spills	Soil, cement & possible water pollution.	• Insulation oil manual • Waste Management Procedure, EPC 32-245 • National Environmental Management Act 107 of 1998 Chapt 7 Sec 28, 30 • Occupational Health & Safety Act 85 of 1993 • National Water Act 36 of 1998. Section 19 & 20	**1.** Measures must be in place to prevent oil spills e.g. use of correct & good condition equipment, availability of oil draining procedures & use of trained personnel. **2.** There must be spill kits and trained personnel on spill kit use onsite. **3.** Emergency clean-up plans must be arranged prior, should there be major spill e.g. clean-up consultants.	Incident Flash Reports, Oil Spill investigation report	Eskom personnel and/or contractor	Throughout project implementation	
Storage of oil	Handling, spills, leaks	Possible pollution to water or soil.	• Hazardous Chemical Substances Regulation • National Environmental Management Act 107 of 1998 • National Water Act 36 of 1998. • Waste Management Procedure, EPC 32-245	**1.** Storage containers must be of a good condition so as not to cause spillages **2.** Storage facilities must be in good condition that pollution will not occur. 3. Oil storage containers should be marked indicating type of oil stored 3. Areas where oil containing equipment is kept must be clearly demarcated and equipment should be standing on drip trays on impervious surfaces ie where oil can't seep through	Incident Flash Reports, Oil Spill investigation report	Eskom Personnel	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				4. Oil and/or oil containing equipment should be kept away from any water sources or water drainage areas				
Transport of oil	Handling Oil spillage/ leaks from poor packaging. Road accident.	Possible pollution to road, soil, & water.	• National Road Traffic Act 93 of 1996 • Hazardous Chemical Substances Regulation • Occupational Health & Safety Act 85 of 1993	**1.** There must be spill kits and trained personnel on spill kit use in the transportation vehicle. **2.** Emergency plans must be arranged prior to transportation, should there be major spill e.g. clean-up consultants contacts knowns, travel routes determeined. **3.** Vehicles used for transportation must be road worthy. 4. Oil containing equipment must be transported on drip trays	Incident Flash Reports, Oil Spill investigation report	Eskom personnel and/or contractor	Throughout project implementation	
Transportation of waste	Road accident, Spills	Injuries, Fatalities, Damages, pollution	• National Road Traffic Act 93 of 1996 • Environmental Conservation Act 73 of 1989 • SANS 10228, 10232 – Transportation of Hazardous Materials. • Waste Management procedure 32-245	**1.** Emergency plans must be arranged prior to transportation, should there be accidents e.g. travel routes, clean-up consultants. **2.** Vehicles used for transportation must be road worthy. **3.** During transportation, speed limits and all traffic signs must be adhered to. **4.** Materials must be safely and adequately contained	Emergency plans, Incident flash report	Eskom personnel and or Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				5. Transportation of hazardous waste should be done only by registered hazardous waste transporters. **6.** There must be spill kits and trained personnel on spill kit use onsite.				
Oil catchment area around the transformer	Containment of oil	Environmental degradation due to oil spill	• Standard for Passive Fire Protection for filled Equipment in High Voltage Yards	**1.** Adequate bunding to be included to be able to contain oil from polluting surrounding environment in the event of a major oil spill **2.** The oil catchment area must be able hold 110% of total oil in the relevant transformers. **3.** There must be no crushed stone in the catchment area **4.** An oil drainage facility must be provided for each catchment. This system must be separate from the storm water drainage system.	Oil catchment area build to standard specifications	Engineer/ Planner/ Project Coordinator, Eskom personnel and or Contractor	During construction	
Replacement, installation and/ or removal of other equipment	Scraping, handling, selling, storage, reuse and transporting of isolators Transferring of assets and their risks.	Business risk, health, pollution and illegal dumping	• National Environmental Management Act 107 of 1998 Chapt 7 Sec 28, 30	**1.** All equipment and material that could not be sold on site as scrap should be delivered to Eskom stores. **2.** All parts that can be recycled or reused can be transported back to stores. **3.** All other assets to be sold must be referred to *Commercial Department-*	Asset sales records, Quantity records, Inventory records	Engineer/ Planner/ Project Coordinator, Procurement, Eskom personnel and or Contractor	Prior to sale/ contractor appointment, During isolator replacement, on going	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
	Mishandling .Illegal dumping.			*Assets Disposal (051-404 2310)*				
Incidents	Reporting and response measures.	Pollution, damages, injuries	• Hazardous Chemical Substances Regulation • National Environmental Management Act 107 of 1998 • National Water Act 36 of 1998. • Procedure for the effective Management of safety, health and environmental related incidents EPC 32-95	**1.** Incidents (accidents, hazardous substance spills, etc.) and near-misses must be reported to the Safety Risk Management representative according to Eskom Distribution Standard for Reporting, Recording, Investigating, Costing and Follow-up of Incidents/Accidents: DPC 34-350.	Incident Flash report,	All Eskom personnel and or Contractor	Throughout project implementation	
General	Access	Unauthorised access to substation, injuries and damages	• Fencing Act 31 of 1963 • SHEQ policy 32-727	**1.** Access to site during project implementation to be arranged with the TSO or Project Coordinator. **2.** Use existing roads/access roads and avoid making multiple tracks **3.** Gates found closed should be closed once again when passed through. **4.** There should be no climbing or crawling over or through a fence or gate without permission of the owner of landowner 5. Reference to be made to the access conditions stipulated by landowner	Complaints register, Incident Flash report	Eskom personnel and or Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
Training	Performing activities that could have negative environmental damages	Incidents and response measures	• National Environmental Management Act 107 of 1998	**1.** Personnel must be informed and educated with regards to the contents of the EMP and with respect to activities that could be harmful to the environment. **2.** NEMA 28(3) (b): Reasonable remedial measures required include informing and educating employees about the environmental risks of their work. **3.** Personnel must be trained to deal with emergency situations and should be capable of using an Oil spill kit to treat minor spills.	Training records, certificates	Project Coordinator, Contractor,	Throughout project implementation	
Transportation	Driving	Trampling of vegetation, habitat destruction, damage to wetland area	• National Water Act 36 of 1998. • National Environmental Management: Biodiversity Act 10 of 2004 • National Road Traffic Act 93 of 1996 Hazardous Chemical Substances Regulation	1.Driving on site should be kept to minimal speeds to minimise threat to livestock and reduce risk of excessive erosion 2. Transport shall not cause undue damage to waterbodies, roads, vegetation, crops or fields prepared for planting, etc. 3 Existing access roads shall be used unless otherwise arranged with the landowner.		All members of project team	During construction	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				3. Any damage caused during construction by vehicles to roads should be repaired				
	Fuel leaks	Possible water pollution, land pollution, reduction in quality of wetland functions and ecosystems	• National Water Act 36 of 1998. • National Environmental Management: Waste Act 59 of 2008 • National Road Traffic Act 93 of 1996 Hazardous Chemical Substances Regulation	1. All vehicles will be in a roadworthy condition and will be checked or leaks such as oil, petrol or diesel before entering the construction area. 2. No maintenance of any sort to vehicles should be done on site. 3. Drip trays must be placed underneath all stationary construction vehicles on site.		All members of project team who visit/work on the project site	During construction and throughout plant's lifecycle	
Waste management	Waste and hazardous substances	Pollution of substation yard and surrounding area	• Hazardous Chemical Substances Regulation • National Environmental Management Act 107 of 1998 • Environmental Conservation Act 73 of 1989 • Occupational Health & Safety Act 85 of 1993 • Atmospheric Pollution Prevention Act 45 of 1965	**1.** Refuse bins with secure lids must be made available on site. **2.** All waste including general litter must be removed from the site and disposed of at a licensed disposal site on a regular basis. **3.** No waste is to be left on site. **4.** All hazardous waste must be collected in marked receptacles in a demarcated area on site.	Waste is managed properly and efficiently. Site is clean and tidy	Eskom personnel and or Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
			• Hazardous Substances Act 15 of 1973 • Waste Management Procedure, EPC 32-245	**5.** Hazardous waste must only be disposed of at hazardous disposal site registered to handle such waste. **6.** Records of quantity, disposal site, and disposal date and transporters must be kept and submitted to the Environmental section after project completion. **7.** Hazardous materials identified for disposal must not be stored for more than 90 days while preparations are made for final disposal. **8.** If possible, refuse must be recycled, reused or sorted. **9.** No solid waste is to be burned on site.				
	Health and safety issues	Unhealthy living conditions and hazardous working conditions for workers	• The Constitution of RSA. • Occupational Health & Safety Act 85 of 1993	**1.** An adequate number of toilet and water facilities must be provided. All water facilities, toilets, bins, etc, must be serviced regularly. The facilities must comply with ESKOM standards & other legal requirements. **2.** A fully serviced first aid kit must be close at hand on site at all times. **3.** Warning signs are to be set up in advance of road works for motorists. Warning signs are to be put up by	Incident Flash reports, Complaints register	Eskom personnel and or Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
				electrical equipment and hazardous substances				
	Noise	Noise pollution from vehicles and workers		**1.** Limit work to daylight hours. **2.** Fit silencers on vehicles if necessary. **3.** Workers to conduct themselves in a respectable manner.	Complaints register	Eskom personnel and or Contractor	Throughout project implementation	
	Fire	Uncontrolled fires	• National Veld and Forest Fire Act 101 of 1998	**1.** No open fires to be allowed anywhere on site. **2.** Ensure that the site is equipped with adequate firefighting equipment and personnel are adequately trained. **3.** Fire extinguishers must be available on site.	No outbreaks of fires due to negligence	Eskom personnel and or Contractor	Throughout project implementation	
	Social	Complaints from interested and affected parties	• Constitution of the Republic of South Africa, Act No. 108 of 1996 section 7 to 39 - Bill of Rights • National Environmental Management Act 107 of 1998	**1.** Activities that may cause conflict with adjacent landowners, the local community must be avoided. **2.** Should conflict arise, it should immediately be reported to the ESKOM project manager. **3.** Properties, fences, locks or gates of Eskom and the adjacent landowners shall not be damaged when accessing the site.	Complaints register	Eskom personnel and or Contractor	Throughout project implementation	

Activity	Aspect	Impact	Regulatory requirement	Mitigation Measures	Performance Indicators (KPI's)	Roles and Responsibility	Schedule	Date Completed/ Remarks
	Possible Archaeological/Paleontological artefacts	Loss or damage to Archaeological/Paleontological artefacts		**1.** If any archaeological materials are found during this project, construction must cease immediately and the environmental officer whose name appears on the front of this document should be contacted immediately.	Incident Report	Eskom personnel and or Contractor	Throughout construction stage.	

8. Conclusion

This EMP highlights the environmental issues related to the Rouxville 66/22kV transformer bay project. This EMP encourages easy management of activities and related impacts. In order to minimise negative environmental impacts, these recommended measures must be implemented. The EMP is a stand- alone document, which must be used on the site throughout all development phases. The onus set out in the EMP rests with the Eskom personnel and the contractors, who need to be environmentally responsible and demonstrate environmental commitment.

9. Important Recommendations

- To ensure conformance to the EMP, it is recommended that a monitoring program be set up. The monitoring program can be used to monitor the effectiveness of the EMP and also identify environmental issues and impacts that have not been accounted for in the EMP, which are or could result in significant environmental impacts for which corrective action is required.
- **It is important that the Environmental Management Plan be presented and explained to the Construction team and/or contractors in order to familiarise them to the environmental agreements and conditions**.
- Site visits are to be conducted throughout the project by the relevant environmental practitioner, representatives from construction, project management or affected parties at predetermined intervals.
- It is recommended that emergency plans be put in place for the activities identified within the EMP in order to minimise possible impacts should incidents occur.
- Prior arrangement must be made for the timely / immediate appointment of clean-up consultant should major spill occur.

- All equipment handled must be inspected for cracks, open lids, loose screws, leaks etc. during operation, before removal and transportation.
- All assets that are to be sold must be referred to Maxi Wesi , Commercial Department and Assets Disposal. Contact number: 051-404 2310
- **The EMP is a dynamic, living document meaning that it can be amended during the course of the project should new aspects areise or certain information becomes irrelevant.Any new environmental aspect identified during the project needs to be added to the EMP register above. Similarly, should there be a variation in scope that deems some aspects become irrelevant then these would also need to be removed. Help in this regard can be obtained from the environmental section. Contact details: Mahlatse Moeng (051) 404 2287**

Standard Conditions to be adhered to during construction and Operation.

1.1 The Eskom project manager or co-ordinator shall be responsible for ensuring that the land owners/ TSO/ Project co-ordinator have been informed before any work is carried out on site. Contractors shall find out if owners/ TSO/ Project co-ordinator the have been informed before moving onto site.

1.2 No fences, gates or locks shall be damaged to obtain access onto a line route. Arrangements shall be made in advance to obtain permission for access.

1.3 Use of private roads shall be arranged in advance. Any damage to private roads shall be repaired at the contractor's expense and to the satisfaction of the landowner. This shall be the responsibility of the project manager or coordinator.

1.4 Gates shall be left as they are found, i.e. closed gates shall be kept closed and open gates shall be left open. Gates to adjacent properties or onto public roads shall be closed at all times. Any Eskom gates installed on the line route shall be kept closed and locked except while stringing is taking place. Open gates shall be guarded to prevent animals straying and unauthorized persons and vehicles entering into adjacent camps or properties.

1.5 Permission shall be obtained from landowners before any water is used.

1.6 No fires shall be lit on private property.. No firewood shall be collected in the veld.

1.7 If activities that can cause a fire are carried out, fire extinguishers shall be available on site and in the construction camp.

1.8 No property may be accessed after normal working hours except with the permission of the landowner /TSO/ Project co-ordinator. Privacy shall be respected at all times.

1.9 Eskom, Eskom's contractors and their employees shall at all times be courteous towards landowners, tenants and the local community.

1.10 Eskom, Eskom's contractors and their employees shall not cause damage to property, crops or animals. Activities that may cause conflict with landowners, tenants, the local work force or the local community shall be avoided. Should conflict arise it shall be immediately reported to the Eskom project manager or coordinator.

1.11 Vehicles shall be driven at a moderate speed on private roads and stay within the statutory speed limit on public roads.

1.12 All movement of vehicles shall take place on the established Eskom servitude road or on private roads as agreed in advance. Keep to existing tracks. No movement shall take place through the veld. Special care shall be taken to prevent excess damage during wet weather.

1.13 If any vehicle should get stuck, the damage shall be repaired immediately so that no deep ruts remain.

1.14 Any damage to private property shall immediately be reported to Eskom and the owner. The damage shall be rectified immediately if possible and/or appropriate compensation shall be paid to the owner at the discretion of the project manager/coordinator in consultation with the property owner. A written record of damages and rectifying action shall be kept. The landowner's satisfaction with the outcome of rectifying action shall be obtained in writing.

1.15 A proper system of waste management shall be instituted in the construction camp. This entails that sufficient waste bins are available on site and in the construction camp. The waste shall be dumped at an approved waste disposal site. No containers, scrap metal, conductor etc. shall be left on site.

All scrap shall be removed and taken to an appropriate disposal site. No oil, diesel or other chemicals shall be spilled or discarded anywhere. If an accidental spill occurs, it shall be reported immediately and cleaned to the satisfaction of Eskom and the landowner. No waste shall be left in the veld or on the line route.

1.16 Water and Toilet facilities shall be provided on site and in the construction camp. The facilities shall comply with Eskom standards and shall have the approval of the landowner.

1.17 No human excrement shall be left in the veld. If no toilet facilities are available such waste shall be buried *immediately*.

1.18 Herbicides shall only be applied with Eskom's permission and in accordance with the *Eskom Standard: Herbicide usage in Eskom Prohibited and Restricted areas, live chambers, telecommunication infrastructure yards and security fences 240-125477962*

1.19 Camp and office sites shall be dismantled and removed after completion of the construction phase of the project. The site shall be rehabilitated to as close as possible to its original condition to the satisfaction of the landowner that shall be in writing.

1.20 All excavations shall be enclosed to prevent animals or people from accidentally falling into excavations.

1.21 No trees shall be cut or removed without prior permission from the landowner. Permits shall be obtained for the cutting and removal protected trees

Other Documents

UNIQUE IDENTIFIER	DOCUMENT NAME
EPL 32-727	SHEQ Policy
EPC 32-245	Waste Management Procedure
EPC 32-95	Procedure for the Effective Management of Safety, Health and Environmental related Incidents
	National Environmental Management Act 107 of 1998.
	Hazardous Chemical Substances Act
	Occupational Health & Safety Act

Appendix A- Hydrocarbon spill assessment table

Hydrocarbon Spill Assessment Table								
					Template Identifier:		240-44047082	Rev 5
					Document Identifier:		**240-47176039**	Rev 5
					Authorisation Date:		**01 February 2021**	
					Revision Date:		**01 February 2023**	
Date:	**Site Details:**			**Compiler:**			**Incident Number:**	
Incident Details:								
All hydrocarbon spills need to be assessed by completing this assessment table. Using your judgement based on the facts available, allocate the relevant numerical points (0, 1, 3 or 5) to the respective rows/columns. The cumulative score will automatically be updated and a colour coded rating allocated for you which then provides guidance on the appropriate corrective action. Consult with the relevant Environmental Officer for guidance, when unsure.								
Condition	**0**		**1**		**3**		**5**	
Source of the spill	Minor drip		Weep		Drip/leak		Explosion/incident	
Age of spill	Spill happened now		Happened within last 24 hours		Happened recently - spill still moist (within the last week)		Historic (consequences/impact unknown)	
Timeous response	Notification adequate and timeous according to Environmental Incident Management Procedure		Notification but action not adequate to prevent further damage		Notification but no further action		Environmental Incident Management procedure not followed	
Threat to any water body until spill is cleaned (including weather conditions)	None – in bund area, not impacted by weather conditions		Low threat (although not in bund area), good weather conditions until spill is cleaned		Threat with rain, weather conditions are moderate and may changed unexpectedly		Raining and/windy with access to waterway/water resource	
Ability to contain spill	Within bund area or containment tank		Leak is minor - can be controlled, contained and plugged with a spill kit		Leak is moderate - cannot be successfully managed with spill kit.		Leak is serious, containment is impossible	
Life threatening conditions (human and environment)	None at all		Minor (potentially an environmental and health risk if not treated)		Moderate (environmental and/or health risk)		Serious (uncontrolled release, impacting environment, health or property (NEMA S30/NWA S20)	
Properties affected	In bund area		On Eskom property Inside Eskom security fence		On Eskom property but outside security fence		Off-site (Eskom's neighbouring properties and public roads)	
Public relations threat	None		Small (no reputational damage envisaged)		Medium (reputational damage local)		Large (reputational damage national)	
Surface types	Bund area/concrete or cement /impermeable surface		Clay or compacted ground		Loose or loam soil		Sandy soil and gravel	

Traffic implications	Not on any road		Within Eskom boundaries		Public road/part of the road will just be cordoned off		Public road that will need to be closed off	
PCB presence*	None		Less than 50 ppm in the oil		Unknown		Over 50 ppm in the oil will automatically get ≥25 points	
Score	Sub total	**0**	Sub total	**0**	Sub total	**0**	Sub total	**0**
Total		**0**		**Rating**				
Rating and Mitigation Action	**Insignificant spill**		**Minor spill**		**Moderate spill**		**Major spill**	
	≤ 6 POINTS		**7 - 13 points**		**14 – 24 points**		**≥ 25 points**	
	Clean-up to be performed (using potable spill kits, rag, etc.), incident recorded in site register and reported to Environmental practitioner. Informed Recorded as 'For Noting".		Clean-up must be performed (using potable spill kits, rag, etc.), site register updated and a report issued to the relevant Environmental practitioner, reported as an incident.		Contain, and consult or call in the assistance of the Environmental practitioner (and emergency response if needed), report as incident, possibly a legal contravention.		Contain, call on Environmental practitioner and site supervisor who will assess the situation and if needed call upon an emergency response team, report as an incident, possibly a legal contravention.	

Appendix B –

Contents of the plan of work referred to in section 6.4 of this EMP

(As adopted from Appendix A of the *Eskom procedure 32-303 Requirements for the Safe Processing, Handling, Storage, Disposal and Phase-out of Asbestos)*

Contents of the plan of work (specific plans for routine work)

The plan of work shall contain the following minimum information:

1. Name and address of the approved/registered asbestos contractor (RAC) who intends to conduct the asbestos work to be carried out.

2. Certificate of approval, as an asbestos contractor, issued by the Department of Employment and Labour.

3. Name and contact details of the person who is in charge of the work.

4. Name and contact details of any mandatory person (if applicable).

5. Name and address of the AAIA that should approve the plan of work and that will take charge of air monitoring.

6. Air-monitoring strategy.

7. Address of the building(s) or structure(s).

8. Location/description of the building(s) or structure(s), including size/area.

9. Scope of the work to be performed, such as the following:

    • Repairs/maintenance of structures/ACM

    • Removal of panels or lagging material

    • Demolition of structures

    • Disposal of asbestos/ACM, etc.

10. Nature of the work to be performed, such as the following:

- Maintenance
- Repairs
- Alterations
- Demolition
- Removal
- Stripping
- Cleaning
- Disposal

11. Type of surfaces, for example, pipe sections, panels, etc.
12. Interior or exterior work to be performed.
13. Approximate mass or volume of asbestos/ACM present.
14. Scheduled commencement and completion dates.