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ENVIRONMENTAL AUDIT REPORT

FOR THE

CONSTRUCTION OF THE ORIGINAL STEAM GENERATOR INTERIM STORAGE FACILITY (OSGISF) AT KOEBERG NUCLEAR POWER STATION

PREPARED FOR: ESKOM HOLDINGS SOC LIMITED
Koeberg Nuclear Power Station
R27 Off West Coast Road
Melkbosstrand
REPORT NO: ECO/KOE/OSGISF/02/2022
DEA EIA REF NO: 14/12/16/3/3/2/947

DATE: February 2022



PROJECT DETAILS

| | |
|-----------------------------------|--|
| TITLE: | The construction of the Original Steam Generator Interim Storage Facility (OSGISF) at Koeberg Nuclear Power Station on Cape Farm 1552, Duynfontein, Cape Town. |
| LOCATION: | Koeberg Nuclear Power Station R27 Off West Coast Road Melkbosstrand |
| ENVIRONMENTAL CONSULTANCY: | Sharples Environmental Services cc. |
| PRIMARY ECO & AUTHOR: | Ms Betsy Ditcham (Supervising ECO) |
| EXPERTISE: | Betsy has a Bachelor of Science Honours Degree in Wildlife Management from the University of Pretoria and a Bachelor of Science Degree (Zoology and Ecology) obtained from the University of Cape Town in 2005. She has 9 years' experience in the environmental field, including environmental assessments, legal compliance, on-site compliance monitoring, cleaner production and business greening and sustainability (carbon and environmental footprinting). In her time as a consultant, she has compiled a number of environment assessments and management plans for both private and governmental clients. Betsy is co-owner of SES and is registered with EAPASA (Reg no. 1480) |
| CLIENT: | ESKOM HOLDINGS SOC LIMITED |
| REPORT CLASSIFICATION: | Environmental Monitoring Report |
| SES REFERENCE NUMBER: | ECO/KOE/OSGISF/02/22 |

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| Section | |
|---------|---------------------|
| 1 | Introduction |

Sharples Environmental Services cc (SES) has been appointed by Trans-Africa Projects (Pty) Ltd on behalf of *ESKOM HOLDINGS SOC LIMITED* (the client), as the Environmental Control Officer (ECO) to monitor the construction of the Original Steam Generator Interim Storage Facility (OSGISF) at Koeberg Nuclear Power Station (KNPS) on Cape Farm 1552, Duynfontyn, Cape Town. SES has been appointed to undertake monitoring inspections for the duration of the contract period, to ensure that measures outlined in the Environmental Management Programme (EMPr) and Environmental Authorisation are implemented and that environmental degradation is kept to a minimum. This report has been compiled to indicate compliance with the Environmental Authorisation (EA) issued by the Department of Environmental Affairs (DEA) and the EMPr compiled by SRK Consulting (South Africa) (Pty) Ltd (dated November 2016).

Environmental Authorisation was granted by DEA on May 17th, 2017. An application to amend the Environmental Authorisation was submitted by NCC Environmental Services and granted in October 2018.

| Section | |
|---------|--------------------------------|
| 2 | Description of Activity |

Eskom proposes to construct an Interim Storage Facility for the temporary storage of the original steam generators at Koeberg Nuclear Power Station (KNPS) (now referred to as the "project"), thereby ensuring the continued operation of KNPS.

SRK Consulting (South Africa) (Pty) Ltd (SRK) undertook the Scoping and Environmental Impact Reporting (S&EIR) process required in terms of the National Environmental Management Act 107 of 1998, as amended (NEMA). The Environmental Impact Assessment (EIA) Report (SRK Report No.: 478317/06) contains a detailed description of the project and its impacts.

In terms of the National Environmental Management Act, 1998 (Act No.107 of 1998) and the Environmental Impact Assessment Regulations, 2014. The authorisation of the following activities was granted by DEA;

- GN R.983 Activity number 27
- GN R.984 Activity number 3

| Section | |
|---------|-----------------|
| 3 | Location |

KNPS is located on a sandy coastline of the West Coast, approximately 27 km north of the Cape Town Central Business District and 1.5 km north of the residential area of Duynfontein (Figure 1). KNPS is situated on Cape Farm Duynfontyn No. 1552 (previously consisting of Farm Duynfontyn No. 34 and Farm No. 1375 which were consolidated by the City of Cape Town in 2015). Access to KNPS is via the R27 which runs along the property's eastern boundary or alternatively via Otto du Plessis Drive. Cape Farm Duynfontyn No. 1552 is owned by Eskom and measures approximately 1 294 ha and is zoned for Risk Industry and Agricultural.

The OSGISF will be located within the Security Protected Area (SPA) of KNPS, a flat area mostly disturbed by previous construction activities and by current operational activities at KNPS.



Figure 1: Locality of Koeberg Nuclear Power Station (site).

Section
3.1

Site Camp

The site camp is located directly adjacent to the working area. The site camp consists of a number of office containers, ablution facilities and eating areas.



Figure 2: Site locality within Koeberg Nuclear Power Station.

| | |
|---------|-------------------|
| Section | Construction work |
| 4 | |

This section highlights and discusses the key construction activities observed during the site inspection.

At the time of the site visit, the working area was clearly demarcated and construction of the two building foundations had been completed.

Building 1 was in the process of being prepared for the final major concrete pour to the roof, which was planned for 26/27 February 2022.

An agreement has been reached with the power station for work to be conducted at night and on Sundays, in addition to the Saturdays already worked. These additional shifts started on 20 January 2022.

| | |
|---------|-----------------------|
| Section | Environmental Matters |
| 5 | |

SES is appointed to undertake a monitoring role in terms of this project and will conduct monthly Environmental visits as per the contract. Ad hoc visits may be conducted, should these be required.

| | |
|---------|------------------|
| Section | Waste Management |
| 5.1 | |

Waste separation is evident at the site camp, with the provision of separate waste storage areas. It is understood that general waste would be removed to the KNPS designated waste area, with hazardous waste and builders' rubble being disposed of off-site at a licenced landfill site through a contracted waste company.

| | |
|---------|----------------------|
| Section | Vegetation clearance |
| 5.2 | |

Search & Rescue was conducted prior to the commencement of clearing activities. A copy of the Search & Rescue report is available on request.

No further vegetation is impacted by the construction activities on site.

| | |
|---------|------------------------|
| Section | Weekly DEO Inspections |
| 5.3 | |

A Designated Environmental Officer conducts weekly inspections, based on the conditions of the EA and EMPr. The findings of these inspections are circulated to the ECO for review and record.

The DEO identified one **Non-Compliance** during the weekly site inspection of 11 February 2022:

- *Designate the area beyond the boundary of the site as No go areas for all personnel on site. No vehicles, machinery, materials or people shall be permitted in the No go area at any time without the express permission of the RE in consultation with the ECO.*

- It was found that the boundary signage stating ("NO GO") had not been put in place.

The following two **Partial Compliances** were also noted during the weekly inspections:

- *Ensure that contaminants (including cement) are not placed directly on the ground (e.g. mix cement on plastic sheeting).*
 - Concrete spillages had not been cleaned from site and would need to form part of Housekeeping duties.
- *Suitably maintain firefighting equipment*
 - Three FE found on site were due for next service.

| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|---------------------------------|---|--------------------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| <u>SITE CAMP</u> | | | |
| Submit a method statement for Site Camp establishment for approval by the ECO at least two weeks prior to the start of construction activities | Full | Site Establishment Method Statement has been drafted and submitted during Tender Phase. Method Statement has been signed by all parties (ERI and ESKOM) | No further action to be taken. |
| Establish a suitably fenced Site Camp at the start of the contract, which will allow for site offices, vehicle, equipment, material and waste storage areas to be consolidated as much as possible. Locate the Site Camp at a position approved by the ECO. Provide water and / or washing facilities at the Site Camp for personnel. | Full | Site Camp has been fenced off as per instruction. Fence has sufficient Safety Signage available. Waste Bins has been allocated and placed strategically for different waste streams. Waste streams identifiable by means of labels. Drinking water are available to workers. Source of water CCT. No washing will take place on site | |
| Demarcate construction site boundaries upon establishment. Control security and access to the site. Fence off site boundaries to the satisfaction of the ECO and ensure that plant, labour and materials remain within site | Full | Site Area has been properly demarcated. Construction Footprint is | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|--|--|--|--------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| boundaries. | | clearly marked and employees are well aware of where footprint ends. | |
| Designate the area beyond the boundary of the site as No go areas for all personnel on site. No vehicles, machinery, materials or people shall be permitted in the No-go area at any time without the express permission of the RE in consultation with the ECO. | Full | | |
| SAFETY & SECURITY | | | |
| Ensure that emergency procedures (in relation to fire, spills, contamination of the ground, accidents to employees, use of hazardous substances, etc.) are established prior to commencing construction. | Full | | |
| Make all emergency procedures available, including responsible personnel, contact details of emergency services, etc. to all the relevant personnel. Clearly demarcate emergency procedures at the relevant locations around the site. | Full | As per Accountability List all Emergency Personnel Details has been updated. | |
| Secure the Site Camp, particularly to restrict unauthorised access to fuels and any other hazardous substances. | Full | The site does have Hazardous Substances and Containers has been purchased where Haz Chem will be stored with SDS attached. | |
| Store all construction material and equipment in locked containers within the Site Camp. | Full | Stores has been allocated where all material has been stored. Stores are locked and store man has been appointed. | |
| Provide suitable emergency and safety signage on site, and demarcate any | Full | Emergency Signage has | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|--|---|---|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| areas which may pose a safety risk (including hazardous substances, etc. | | been posted strategically. | |
| Advise the ECO of any emergencies on site, together with a record of action taken. | Full | | |
| <u>EMPLOYMENT</u> | | | |
| Prioritise the employment of local people | Full | As per SD&L requirements. | |
| Procure locally produced goods (plant and materials) and services, where possible. | Full | As per Procurement Procedure | |
| Promote on-the-job training wherever possible. | Full | | |
| <u>ENVIRONMENTAL AWARENESS TRAINING</u> | | | |
| <p>Provide environmental awareness training to all personnel on site at the start of their employment. Training should include discussion of:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Potential impact of construction waste and activities on the environment; <input type="checkbox"/> Suitable disposal of construction waste and litter; <input type="checkbox"/> Key measures in the EMPr relevant to worker's activities; and <input type="checkbox"/> How incidences and suggestions for improvement can be reported. <p>Ensure that all attendees remain for the duration of the training and on completion sign an attendance register that clearly indicates participants' names.</p> | Full | Register of environmental training kept on site | Environmental Induction Training has been conducted on the following days 14 February 2022 Environmental Toolbox Talks 15/02/2022 Chemicals which should not be stored together 16/02/2022 Types of Environmental Incidents 17/02/2022 Waste Recycling Separation of waste at the source. |
| <u>HAZARDOUS MATERIALS</u> | | | |
| Design and construct hazardous material storage facilities, especially fuel | Full | Haz -Chem stores has been | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|--|---------------------------------|--|---|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| storage, with suitable impermeable materials and a minimum bund containment capacity equal to 110% of the largest container | | allocated on site. All Fuel is brought to site and refuelled by Service provider. | |
| Ensure that contaminants (including cement) are not placed directly on the ground (e.g. mix cement on plastic sheeting). | Partial | No hand mixing of cement is currently on site. Ready-mix on site are handled accordingly. If and when spillages occur cement is left until it hardens and cleaned and placed on PVC sheeting until disposal. | Concrete spillages have not been cleaned from site and will need to form part of Housekeeping duties. |
| Avoid unnecessary use and transport of hazardous substances. | Full | No transfer or transportation of hazardous substances has occurred on site. All Hazardous waste generated thus far is kept in a hazardous waste bin. | |
| Compile a procedure for the storage, handling and transport of different hazardous materials and ensure that it is strictly adhered to. | Full | | |
| Keep Material Safety Data Sheets for all hazardous materials on site and ensure that they are available for reference by staff responsible for handling and storage of materials | Full | All chemicals brought on site has SDS attached. File is kept in SHEQ Office. | |
| FLORA MANAGEMENT | | | |
| Limit the footprint area of the construction activity to what is absolutely essential. | Full | No Flora Management will be applicable for the project as all Flora has | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|--|---------------------------------|--|--------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| | | already been covered by Permit allocated for Koeberg Nuclear Power Station. All protected species has been identified and removed from site. | |
| Designate areas outside the construction footprint as No Go areas. | Full | | |
| Ensure that no vegetation is removed or disturbed outside the delineated construction site boundary | Full | | |
| Confine construction vehicles to designated roadways and strictly prohibit the indiscriminate movement of construction vehicles through vegetation falling outside of the construction / disturbance footprint. | Full | | |
| Prohibit temporary storage of building material or soil within areas of natural vegetation falling outside of the construction footprint | Full | | |
| Remove all alien and weed species encountered within areas disturbed by construction activities: <input type="checkbox"/> Where possible, remove alien species by hand; <input type="checkbox"/> Keep footprint areas as small as possible when removing alien plant species; and <input type="checkbox"/> Dispose of removed alien plant material at a licensed waste disposal facility. | Full | Alien And Weed Clearance has been done around the site camp. Camp to be kept clear of overgrown weeds and alien vegetation. | |
| Botanist to be appointed to confirm presence of Species of Conservation Concern (SCC) and protected species within the area | Full | Copy of Search & Rescue report available in request | |
| Rescue and relocation of SCC prior to the commencement of activities. | Full | | |
| Permit must be obtained for the removal / destruction of SCC, indigenous, protected or endangered plant or animal species. | n/a | | |
| FAUNA MANAGEMENT | | | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|---------------------------------|--|--------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| Do not allow contractors or staff to harm, catch or kill birds or animals by any means, including poisoning, trapping, shooting or setting of snares. | Full | Contractor in contact with snake handler should sightings occur. | |
| Attempt, as far as possible to flush fauna within the construction footprint towards more suitable habitat within the surrounding areas. Clear vegetation towards the security fence line, thereby enabling any fauna to naturally relocate through the fence into the surrounding natural areas. | Full | | |
| Backfill trenches / excavations as soon as possible to ensure that the time the trench is exposed is kept to a minimum. | Full | | |
| Open trenches / excavations must be inspected on a daily basis for animals which may have fallen or become trapped. | Full | | |
| Safely remove and relocate any fauna that may be physically harmed by construction activities. | Full | | |
| <u>TOPSOIL STORAGE</u> | | | |
| Limit construction and lay down areas to areas within the development footprint. | Full | Laydown areas has been identified and utilised with proper demarcation poles | |
| Designate and demarcate areas to be used for topsoil stockpiling. | Full | Existing stockpiling of Top Soil has been identified. | |
| Remove topsoil (up to a maximum of 30 cm depth) | Full | | |
| Stockpile topsoil prior to the commencement of construction activities (stockpile no higher than 2m) and conserve topsoil for rehabilitation. | Full | | |
| Locate topsoil stockpiles in an area protected from the wind, and agreed to with the ECO. | Full | | |
| Replace harvested topsoil in areas that are to be rehabilitated as soon as sections of the works are completed (i.e. not only following the completion of | Full | | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|--|---|---------------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| all works) | | | |
| <u>CONCRETE / CEMENT WORK</u> | | | |
| Use Ready-Mix concrete rather than batching where possible. | Full | Ready Mix has been used on site. | |
| Ensure that no cement truck delivery chutes are cleaned on site. Cleaning operations are to take place off site at a location where wastewater can be disposed of in the correct manner. If this is not possible a suitable washing facility is to be developed on site in consultation with the ECO. | Full | No chutes are cleaned on site. Contractor is aware that no cleaning can happen on site | |
| Batch cement in a bunded area within the boundaries of the development footprint only (where unavoidable). | n/a | No cement currently batched on site. | |
| Ensure that cement is mixed on mortar boards / plastic sheeting and not directly on the ground (where unavoidable) | Full | | |
| Physically remove any remains of concrete, either solid, or liquid, immediately and dispose of as waste. | Full | Remains of concrete pours are stored on plastic sheeting to solidify prior to disposal. | |
| Place cement bags in bins and dispose of bags as waste to a licensed waste disposal facility. | n/a | No cement bags are used on site. | |
| Sweep / rake / stack excess aggregate / stone chip / gravel / pavers into piles and dispose at a licensed waste disposal facility | Full | | |
| <u>WASTE MANAGEMENT</u> | | | |
| Submit a Method Statement for waste management (including hazardous waste). | Full | | |
| Aim to minimise waste through reducing and re-using (packaging) material. | Full | RRR is emphasised during induction as per Environmental Policy. | |

| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|--|---|---------------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| Collect recyclables separately and deliver these to suitable facilities or arrange for collection. | n/a | Recycling material cannot be exercised on site. Recycling items is kept to a minimum. | |
| Collect all waste in bins and/or skips at the construction site | Full | Waste Bins have been labelled and placed strategically on site. | |
| Prevent littering by construction staff at work sites by providing bins or waste bags in sufficient locations. | Full | The avoidance of littering on site is emphasised during induction. | |
| Provide separate bins for hazardous / polluting materials and mark these clearly. Store hazardous / polluting materials on impermeable ground until it is disposed of / collected. | Full | | |
| Dispose of waste appropriately to prevent pollution of soil and groundwater. | Full | | |
| Do not allow any burning or burying of waste on site. | Full | Emphasised during Toolbox Talks and Environmental Induction. | |
| <u>CONTAMINATED WATER/RUN-OFF MANAGEMENT</u> | | | |
| Prevent discharge of any pollutants, such as cements, concrete, lime, chemicals, and other contaminated wastewater and fuels into the environment. | Full | | |
| Direct run-off from fuel/workshop/equipment washing areas and concrete swills into conservancy tanks to be disposed of at a site approved by the ECO. | Full | | |
| Place drip trays / sand trays under engines of vehicles or mechanical equipment when parked or stored overnight or longer. | Full | All vehicles have drip trays placed underneath if and | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
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| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| | | when standing. | |
| Clean up any hydrocarbon spills immediately, through containment and removal of free product and dispose of contaminated material at a licensed waste disposal facility. | n/a | No spills noted during the site inspection. Multiple spill kits available on site. | |
| <u>STORMWATER MANAGEMENT</u> | | | |
| Collect stormwater from bunded areas in a suitable container and remove from the site for appropriate disposal. | Full | | |
| Use berms and stormwater drainage systems to prevent surface run-off from entering site excavations. | Full | | |
| Implement measures to maximise the infiltration of stormwater on site. | Full | | |
| Install temporary cut-off drainage channels to prevent stormwater runoff from entering the construction footprint | Full | | |
| Implement the Stormwater Management Plan. | Full | | |
| <u>EROSION MANAGEMENT</u> | | | |
| Ensure that all roads and tracks used for construction have the appropriate water diversion / erosion control structures. | Full | | |
| Restrict construction to drier summer months, if possible, to avoid erosion of exposed soils and sedimentation of surrounding habitats. | Full | | |
| <u>AIR QUALITY MANAGEMENT</u> | | | |
| Avoid clearing of vegetation until absolutely necessary (i.e. just before earthworks) | Full | | |
| Stabilise exposed surfaces as soon as is practically possible | Full | | |
| Avoid excavation and handling and transport of materials which may generate dust under high wind conditions or when a visible dust plume is present. | Full | | |



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COMPLIANCE WITH THE EMPR AND EA

| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
|---|--|---|---------------------------|
| Minimise dust generated off stockpiles: <input type="checkbox"/> Locate piles in sheltered areas where possible; <input type="checkbox"/> Place the stockpile lengthwise into the wind; <input type="checkbox"/> Minimise the slope of the stockpile (maximum slope of 2:1); <input type="checkbox"/> Limit stockpile sizes; <input type="checkbox"/> Install barriers on three sides of the stockpile (maximum 50% material porosity) if required; <input type="checkbox"/> Limit activity to the downwind side of the pile; <input type="checkbox"/> Use the last in – first out system of stockpile management; and <input type="checkbox"/> Cover stockpiles when not in active use for some time and / or use an environmentally friendly chemical spray to bind soil. | Full | | |
| Reduce airborne dust at construction sites through: <input type="checkbox"/> Dampening dust-generating areas with freshwater; and <input type="checkbox"/> Covering dumps or stockpiles of loose material with plastic sheeting or netting, especially during windy conditions. | Full | Dampening measures conducted on site using non-potable water. | |
| Limit vehicle speeds to 20 km/h on unconsolidated and non-vegetated areas. | Full | | |
| Cover trucks transporting loose material to or from site with tarpaulins, plastic or canvas. | Full | | |
| Ensure that any material spilled from trucks during transport to or from the site is cleaned up immediately. | Full | | |
| Use bedliners to minimise seepage and spillage of material from bottom-dumping trucks | Full | | |
| Pre-water material to be moved, if possible. | Full | | |
| Check weather reports daily and closely observe weather patterns to enable action to be taken immediately if conditions change. | Full | | |
| Wash wheels of vehicles before vehicles exit the site to ensure that dust is not | n/a | No washing of vehicles | |



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COMPLIANCE WITH THE EMPR AND EA

| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
|--|--|--|---------------------------|
| carried off-site. Use manual or automated sprayers and / or drive-through wheel washing bays. | | occurring on site. | |
| Limit the number of vehicles allowed on-site and restrict the movement of these vehicles over unsurfaced or unvegetated areas once they are on site to reduce dust problems. | Full | | |
| Sweep roads leading from the site if wheel washing facilities do not effectively prevent mud being deposited on access roads. | Full | | |
| Sweep roads at site entrance and exit points regularly, to prevent the spread of mud / dust by construction vehicles | Full | | |
| Maintain all generators, vehicles, vessels and other equipment in good working order to minimise exhaust fumes. | Full | | |
| Respond rapidly to complaints and take appropriate corrective action. | Full | | |
| <u>NOISE MANAGEMENT.</u> | | | |
| Limit noisy construction activities to day-time from Monday to Saturday or in accordance with relevant municipal bylaws, if applicable. | Full | Working times are normally Monday to Saturday 7:00am to 19:00PM. Any additional working hours will be communicated | |
| Comply with the applicable municipal and / or industry noise regulations. | Full | | |
| Notify adjacent residents before particularly noisy construction activities will take place | n/a | No adjacent affected residents | |
| Maintain all generators, vehicles, vessels and other equipment in good working order to minimise excess noise. | Full | All generators are checked by the storeman prior to booking out for any leaks or deformities. | |
| Enclose diesel generators used for power supply on site to reduce | Full | | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
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| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| unnecessary noise. | | | |
| Respond rapidly to complaints and take appropriate corrective action | Full | | |
| <u>FIRE MANAGEMENT</u> | | | |
| Ensure that no fires are permitted on or adjacent to the site. | Full | No fires are allowed on site unless permitted by Eskom Fire Department. | |
| Ensure that no smoking is permitted on the site | Full | Designated smoking areas has been allocated as per Eskom Requirements. | |
| Ensure that sufficient fire-fighting equipment is available on site. | Full | | |
| Equip all fuel stores and waste storage areas with fire extinguishers | Full | | |
| Ensure that all personnel on site are aware of the location of firefighting equipment on the site and how the equipment is operated. | Full | | |
| Suitably maintain firefighting equipment | Partial | Three FE found on site due for next service | Ensure FE is checked and serviced regularly. |
| <u>TRANSPORTATION AND REFUELLING</u> | | | |
| Undertake regular maintenance of vehicles and machinery to identify and repair minor leaks and prevent equipment failures. | Full | | |
| Undertake any on-site refuelling and maintenance of vehicles/machinery in designated areas. Line these areas with an impermeable surface and install oil traps. | Full | Refuelling of machinery are done by M&M Training. | |
| Use appropriately sized drip trays for all refuelling and/or repairs done on machinery – ensure these are strategically placed to capture any spillage of fuel, oil, etc | Full | Sufficient drip trays have been allocated for all vehicles and or machinery containing fuel. | |

| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|--|--|--------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| Clean up any spills immediately, through containment and removal of free product and dispose of contaminated material at a licensed waste disposal facility. | n/a | No spills noted during the site inspection | |
| Keep spill containment and clean-up equipment at all work sites and for all polluting materials used at the site. | Full | | |
| <u>PROTECTION OF ARCHAEOLOGICAL AND PALEONTOLOGICAL RESOURCES</u> | | | |
| Empower staff to stop works on (chance) discovery of artefacts at the site. | Full | | |
| Report the presence of graves or human remains, fragments of fossil bone, ostrich egg and stone fragments to Heritage Western Cape (HWC) or a suitably qualified archaeologist. | n/a | No graves or human remains, fragments of fossil bone, ostrich egg and stone fragments found during excavation. | |
| Agree on suitable mitigation with HWC or the archaeologist. | n/a | | |
| Obtain a permit for the removal of artefacts from the site if any are discovered during construction. | n/a | | |
| <u>TRAFFIC MANAGEMENT</u> | | | |
| Manage construction sites and activities so as to minimise impacts on road traffic as far as possible, e.g.: <input type="checkbox"/> Attempt to arrange delivery of materials when it will least disrupt traffic; <input type="checkbox"/> Stagger deliveries if possible rather than concentrating them during "rush" hours; and <input type="checkbox"/> Keep construction materials and machinery at the construction site throughout the construction period, where possible. | Full | All internal movement of vehicles are adhered to by max speed limit of 35km/h. | |
| Ensure that large construction vehicles are suitably marked to be visible to other road users and pedestrians. | Full | All external vehicles are clearly branded. | |
| Ensure that all safety measures are observed and that drivers comply with the | Full | | |



| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|--|---|---------------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| rules of the road. | | | |
| Ensure that vehicle axle loads do not exceed the technical design capacity of roads utilised by the project. | Full | | |
| Investigate and respond to complaints about traffic. | Full | | |
| <u>VISUAL ASPECTS</u> | | | |
| Control litter and keep construction site as clean and neat as possible. | Full | Housekeeping is on –going | |
| Avoid excavation, handling and transport of materials which may generate dust under high wind conditions. | Full | | |
| Keep construction sites tidy and all activities, material and machinery contained within an area that is as small as possible. | Full | Housekeeping is on –going | |
| Minimise the use of night-lighting. | Full | Night-lighting is directly only at the working area. | |
| <u>RESPONSE TO ENVIRONMENTAL POLLUTION</u> | | | |
| In the event of environmental pollution, e.g. through spillages, immediately stop the activity causing the problem. | Full | Spillages will be cleaned according to Oil Spill Management | |
| Only resume activity once the problem has been stopped or (in the case of spillages) the pollutant can be captured. | Full | | |
| Repair faulty equipment as soon as possible. | Full | | |
| Install additional bunding / containment structures around the equipment that was the source of the leak / spillage to prevent further incidents. | Full | | |
| Treat hydrocarbon spills, e.g. during refuelling, with adequate absorbent material, which then needs to be disposed of at a suitable landfill. | n/a | No hydrocarbon spills noted during the site inspection | |
| Ensure vehicles and equipment are in good working order and drivers and operators are trained with respect to actions to be taken in the case of a spill or leak. | Full | | |

| February 2022 | COMPLIANCE WITH THE EMPR AND EA | | |
|---|---------------------------------|---------------------------|--------------------|
| | Compliance Full/Part/ Non | Comments/ Observations | Action to be taken |
| <u>SITE REHABILITATION, TEMPORARY CLOSURE & CLOSURE</u> | | | |
| Remove all construction equipment, vehicles, equipment, waste and surplus materials, including site offices, temporary fencing and other facilities, from the site. | n/a | | |
| Clean up and remove any spills and contaminated soil in the appropriate manner. | n/a | | |
| Ensure that no discarded materials are buried on site or on any other land not designated for this purpose | n/a | | |
| Ensure that affected areas are rehabilitated following construction. | n/a | | |
| Rehabilitate areas adjacent to the site (if disturbance is unavoidable) to at least the same condition as was present prior to construction. | n/a | | |
| Use harvested topsoil for rehabilitation following construction. | n/a | | |
| Appoint a suitably qualified professional to undertake or supervise rehabilitation. | n/a | | |
| Rehabilitate all project areas as soon as possible after completion of activities in each area, including removing and/or remediating any contaminated soils. | n/a | | |
| Replace harvested topsoil in areas that are to be rehabilitated as soon as sections of the works are completed (i.e. not only following the completion of all works). | n/a | | |



| Section | |
|---------|-------------------|
| 6 | Conclusion |

SES has compiled this Environmental Monitoring Report to detail compliance with the EA and EMPr for the site inspection conducted on 22 February 2022.

One partial compliance was noted during the site visit, with relation to Fire Fighting Equipment. Construction should continue to be undertaken in compliance with the EA and EMPr.

