#### **ENVIRONMENTAL MONITORING REPORT**

Power Lines from Kendal/Kusile to Zeus Substation Bravo Integration Project – Bravo 4: Construction of two 400 kV lines

**DEA Ref # 12/12/20/1095** 





#### **Report Completed by:**

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#### 1. Introduction

#### **Project Description**

The growing demand for electricity is placing increasing pressure on Eskom's existing power generation and transmission capacity. Eskom is committed to implementing a Sustainable Energy Strategy that complements the policies and strategies of National Government. Eskom aims to improve the reliability of electricity supply to the country, and in particular to provide for the growth in electricity demand in the Gauteng and Mpumalanga provinces. For this reason, Eskom obtained environmental authorisation to construct the new 400 kV Bravo (Kusile) coal-fired Power Station between Bronkhorstspruit and Witbank in 2007.

Due to this construction, the new Bravo power station needs to be integrated with the existing Eskom electricity infrastructure. This proposed project is to construct two new 400 kV overhead power lines from the Kendal power station to the Zeus substation. Each of these lines is approximately 100 km in length.

Towns closest to the Kusile and Kendal – Zeus Substation transmission lines project area include Ogies and Delmas in the north, Leandra in the central part and Evander and Secunda in the south. It falls within Emalahleni local municipality and Govan Mbeki local municipality.

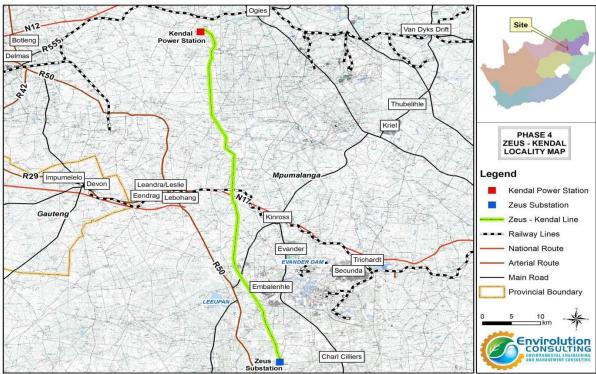


Figure 1: Locality Map indicating the Power line Route

#### **Environmental Authorisation and Environmental Management Programme**

Eskom was required to obtain an Environmental Authorisation (EA) in accordance with the provisions of the National Environmental Management Act (Act 107 of 1998). In order to obtain the EA it was necessary to conduct an Environmental Impact Assessment (EIA) process (Ref: 12/12/20/1095) which culminated with the submission of an EIA Report and a Draft Environmental Management Programme (EMPR). The EA was issued on the 08/10/2009 (authorisation registration number 12/12/20/1096) by the competent authority (CA), the Department of Environmental Affairs (DEA). Once the EA is issued, the Draft EMPR needs to be revised to include any conditions contained in the EA received from the DEA as well as outcomes of a post EA walk-down of the approved power line alignments.

Eskom has appointed Environmental Impact Management Services (Pty) Ltd (EIMS) to conduct the post EA walk-down and to amend the Draft EMPR to include the EA conditions and the walk-down findings and recommendations from relevant specialists (ecology, avifauna, heritage and wetlands). This Final EMPR presents a guideline for the mitigation and management measures to be implemented to avoid, reduce and minimise potential environmental impacts arising out of the development and operation of the proposed power lines and ancillary structures. The purpose of an EMPR is to give effect to precautionary measures, which are to be put in place for controlling the activities that take place on site, and to ensure compliance with national legislative and regulatory requirements. The EMPR should allow for risk minimization, rather than just ensuring legal compliance. The EMPR as a basic requirement complies with Regulation 543, Section 33 (promulgated under the National Environmental Management Act-Act 107 of 1998-NEMA).

It should be borne in mind, however, that the EMPR is a working document that should be updated on a regular basis to ensure continued applicability and improvement- any amendments must comply with the DEA requirements. The relevant approved EMPR and EA must be kept on the property where the activity will be undertaken. The EA and EMPR must be produced to any authorised official of the DEA who requests such and must be made available for inspection by any employee or agent of the applicant who works or undertakes work at the property. By virtue of the fact that the EMPR forms part of the documentation submitted to the CA for decision-making purposes, and forms part of the EA, the provisions contained herein become legally binding.

The Final EMPR comprises of the general EMPR provided by Eskom and compiled by Zitholele Consulting and the site specific environmental management and mitigation measures based on the issued EA and walk-down, as addendum to the general EMPR. Since the Final EMPR is an extension of the conditions of the EA, non-compliance with the Final EMPR constitutes non-compliance with the EA. The holder of the EA must notify the DEA (including the Director: Environmental Impact Evaluation and the Director: Compliance Monitoring) in writing and within 48 hours if any condition of the EA cannot or is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the non-compliance

#### **Monitoring and Reporting Requirements**

Environmental Control Officer (ECO): The Environmental Control Officer (ECO) is appointed by the Eskom as an independent monitor of the implementation of the EMPR, the Environmental Authorization (EA) and to monitor project compliance. The ECO must form part of the project team and be involved in all aspects of project planning that can influence environmental conditions on the site. The ECO must attend relevant project meetings, conduct inspections to assess compliance with the EMPR and be responsible for providing feedback on potential environmental problems associated with the development. In addition, the ECO is responsible for: (i) Liaison with relevant authorities including cases of severe misconduct whereby the ECO could report the matter to the DEA directly; (ii) Liaison with contractors regarding environmental management; (iii) Undertaking routine monitoring and identifying a competent person/institution to be responsible for specialist monitoring, if necessary; (iv) The ECO has the right to enter the site and undertake monitoring and auditing at any time, subject to compliance with health and safety requirements applicable to the site (e.g. wearing of safety boots and protective head gear).

**Department of Environmental Affairs (DEA)** Requirements: Monthly reporting to the DEA shall include the following information: (i) Description of all activities on site; (ii) Problem identified; (iii) Transgressions noted; (iv) A schedule of tasks undertaken by the ECO. All documentation, reports and notifications, required to be submitted to the department in terms of the environmental authorization, must be submitted to the Director: Compliance Monitoring at the department.

The ECO and Eskom shall establish a schedule and procedures for monitoring and reporting at the outset in order to: (i) identify any negative impacts from construction activities; (ii) assess the effectiveness of control measures; (iii) demonstrate compliance with regulatory conditions and objectives and targets set in the EMPR; (iv) Identify if further controls/corrective action is required. In addition, monitoring may be required as a result of a complaint, a request by a statutory body or a trigger point in an inspection or checklist being exceeded. Monitoring and reporting should also reflect any requirements identified or commitments made in the Construction Method Statement. 19

In addition to the routine monitoring conducted by the ECO, a schedule of regular inspections, audits and reporting will be required by the contractor. These inspections should provide a record of site conditions and activities and provide a mechanism by which the contractor, ECO and Eskom can establish the effectiveness of the EMPR for each line. These checklists and reports should be kept at the site office and should be updated and used in the day to day operation of the site. The ECO shall also develop a schedule of inspections and auditing of the EMPR in order to ensure that established standards of environmental controls are being maintained by the contractor.

#### **Monitoring and Reporting Status**

The following table represent the Monitoring Report vs. the Reporting Period

Monitoring Report	Reporting Period
Monitoring Report 1	01 – 30 November 2016
Monitoring Report 2	01 – 20 December 2016
Monitoring Report 3	03 – 31 January 2017

#### **Project activities**

The following activities where taking place on site during this monitoring period:

#### **Babcock:**

- > Site camp establishment
- Deliveries
- Surveying and pegging
- Soil nominations
- Excavations
- Foundation work (Concrete works)
- > Tower assembly

#### Conco:

- > Site camp establishment
- Deliveries
- Surveying and pegging
- Soil nominations
- Excavations and backfilling
- Foundation work (Concrete works)
- > Tower assembly

#### 2. Compliance Status

#### **Incident Register**

The following table is a summary of recorded incidents:

Contractor & Incident No	Date	Description	Description Corrective Action		Status: Resolved (Yes/No)
Conco 1	22/11/2016	Land owner	ECO	EO held	Yes
		knocked over	discussed the	toolbox talk	
		one of the	matter with	with personal	
		mobile toilet	land owner	and discussed	
		on site after	and also	issue with	

		not confine to the roads and drove over some of his newly planted crops	requested that with any situation he should be informed immediately to resolve matters.	Anyone who does not adhere to rules on site will be death with.	
Babcock 01	02/12/2016	Hydraulic oil spill took place when subcontractor changed the excavators bucket off site next to the road	The spillage was cleaned up by means of a spill kit and disposed in hazardous waste bin.	toolbox talk regarding maintenance of equipment and vehicles on site and site camp	Yes
Conco 02	06/12/2016	Calf from the land owner fell into an excavation as well as dead rabbit found in different excavation due to Inadequate barricading	Landowner as notified and calf was removed from excavation, Barricading needs to be improved.	Toolbox talk held with employees	No
Babcock 02	19/01/2017	Service provider for the excavator maintained the plant on site without protective measures after breakdown and spilled 3L of hydraulic oil	Spillage was cleaned up and disposed of in hazardous waste skip	Toolbox talk conducted, no plant allowed to be serviced on site	Yes

Non-compliance Register
The following table represents the Non-Compliance statuses to date by ECO:

Date Opened	Non-Compliance	Corrective Action	Status: Open/Closed
19/12/2016	Inadequate topsoil	Excess spoil must be	Open
	management and	removed and replaced	
	backfilling. At various	with topsoil. Topsoil	
	towers topsoil is mixed	must then be levelled	
	with subsoil during	to represent the natural	
	backfilling, Subsoil on	environment,	
	the surface and surface		
	area not levelled out.		
10/01/2017	Contractor Conco	Barricading must be	Open
	barricading is	fixed and barricading	
	inadequate and does	method readdressed	
	not provide effective	<u> </u>	
	protection.	ineffective and a	
		reoccurring issue	

20/01/2017	Work is taking place at the contractor Conco while required documentation is not in place. Method statements are generic and not site specific or relevant to scope off works. Method Statements are not signed off by required stakeholders. Due since beginning off construction.	Statements and align them with the site EMP, EA and WUL. Method statements should then be send to the ECO for approval. If approved the Method Statement should be signed off by the other	Open

#### **General Observations and Remarks**

Listed below are general observations made on site and remarks:

- 12 NCR's opened to date by client ESO:
   9 NCR's opened against Conco, 5 closed with 4 outstanding and over closure date.
   3 NCR's opened against Babcock, 1 closed with 2 outstanding
- Conco needs to amend their Method Statements, Method Statements are generic and not site specific.
- Pegging issue various complaints from landowners, pegs are not visible and can cause potential damage
- Soil Nomination backfilling Backfilling not adequate and needs to be addressed, soil settling after backfilling leaving ditches
- Water use agreements required from both contractors.
- > Hazardous storage areas construction needs to be concluded.
- > Spill kit training needs to be provided from both contractors
- Water monitoring started at both sides (delayed)
- Work took place on Conco side without any notification or agreement with landowner.
- Babcock site was closed on various time due to rain resulting in inaccessibility of access roads.

#### Other:

Landowner access agreements/servitudes still outstanding

- Rietkuil 283 IS/5, 6 &7 and Grootspruit 279 IS/15 (DPW Mpumalanga)
- ➤ Vlakfontein 328 IS/3, Branddrift 322 IS/2 & 3 and Grootspruit 279 IS/7 (Sasol Mining)

#### Photos

The following table presents examples of some of the site activities and observations



Incomplete hazardous stores leading to NCR's



#### **Compliance checklist**

\*Checklist divided into different phases of project: Pre-construction, construction and rehabilitation although some condition are applicable throughout all phases

#### Checklist keys:

Compliance Status	Description
YES	Means the activity is being/was carried out in a manner that is compliant
163	with the EA and EMPr specifications.
	Means the methods used during a specific activity are not compliant with
	the EA and EMPr specifications. The non-compliance may be described as
NO	a minor or major non-compliance depending on the severity of the
NO	transgression.
	NOTE: failure to rectify a minor non-compliance can lead to a major non-
	compliance
	Means "Not Applicable" and may refer to the redundancy of the
N/A	compliance item or the item may not be relevant at the specific stage of
	the development. The item may only be relevant at a later stage.

The following types of audit evidence are deemed appropriate with respect to the verification of compliance with EA and EMPr specifications:

- <u>Inspection</u> of relevant records or documents consists of examining records or documents, whether internal or external, in paper form, electronic form, or other media
- Inspection of assets consists of physical examination of the assets or mitigation methods
- Observation consists of looking at a process or procedure being performed by others
- <u>Inquiry</u> consists of seeking information of knowledgeable persons inside or outside the entity.
- <u>Confirmation</u> which is a specific type of inquiry, is the process of obtaining a representation of information or of an existing condition directly from a third party
- Recalculation consists of checking the mathematical accuracy of documents or records.

12/ EMP 10 Bravo 4	lition Nr EA 12/20/ 1096 1637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		Pre-Construction Phase General	ral		
	ı	Labour Issues			
1.1	11.11.1. 1	Eskom must appoint a suitably qualified Environmental Control Officer who would act on behalf of the applicant, on a daily basis, monitor project compliance with the conditions of environmental authorisation, environmental legislation and the recommendations of the revised EMP.	Yes	ECO has been appointed	ECO has been replaced on the 01/11/2016
1.12.1	11.11.1.	The ECO / CECO must be appointed prior to the commencement of construction and preconstruction related activities and the authorities must be notified of such an appointment.	Yes	ECO has been appointed and notification send out	
1.12.	11.11.1. 1	The ECO / CECO shall remain employed until all rehabilitation measures, as required for implementation due to construction damage, are completed and the site is handed over to Eskom by the contractor for operation	Yes	ECO full time on site	
1.12.2	11.11.1. 1	The ECO shall maintain the following on site:  • A daily site dairy;  • A non-conformance register; and  • A public complaint registers.	Yes	Observed	As ECO keeping registers of required documentation
		Initiation			
1.2 1.4	11.11.1.	The authorised activity / activities may not commence within thirty (30) days of the date of signature of the authorisation;	Yes	Observed	
1.3	11.11.1. 2	Should Eskom be notified by the minister of a suspension of the authorisation pending appeal procedures, Eskom may not commence with the activity / activities unless authorised by the Minister in writing.	N/A		
1.4	11.11.1.	Fourteen (14) days written notice must be given to the Department that the activity will commence. Commencement for the purposes of this condition includes site preparation. The notice must include a date on which it is anticipated that the activity will commence.	Yes	Observed	Notice given to Department on the 26/05/2016 in clarification meeting between parties

12/ 1 EMP 10 Bravo 4 Addeno	lition Nr EA 12/20/ 1096 1637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
1.5	11.11.1. 2	Fourteen (14) days written notice must be given to the Department that the operational phase of the activity will commence.	N/A		Not applicable at this time of the project
1.12.4 1.16	11.11.1. 2	A copy of the authorisation must be kept at the property where the activity will be undertaken. The authorisation must be produced to any authorised official of the Department who requests to see it and must be made available for inspection by any employee or agent of the holder of the authorisation who works or undertake work at the property.	Yes	Observed	Copies kept in both ESO files
	11.11.1. 2	No work shall commence until permission is granted from the Environmental Advisor from Transmission Services and acceptance of this proposal and EMP from DEAT has been obtained.	Yes	Observed	Permission granted
	11.11.1. 2	Obtain a signed agreement statement from the contractor indicating their willingness to comply to the EMP.	No	Confirmation	Pro Forma received from Conco, still awaiting Babcock`s
		Pre-Construction Phase Site Establishment a Gate Installation and Control		<u>tion</u>	
	11.11.2. 1	No new gate construction is anticipated, however, if the contractor needed must refer to the Fencing Act, Act no 31 of 1963.	Yes	Observed	
	11.11.2. 1	Gate installation shall be according to TRMSCAAC1 REV 3 section 4.5 and the drawing 0.00/10261 Rev 2 as stated in the specifications.	Yes	Observed	
	11.11.2. 1	All gates installed in electrified fencing shall be re-electrified.	N/A		No electrical fencing or gates
	11.11.2. 1	The Environmental Control Officer shall approve gate positions.	Yes	Observed	Gate positions approved by previous ECO
	11.11.2. 1	All gate positions shall be three (3) metres off centre to allow for continued access when stringing takes place.	Yes	Observed	
	1	Batching Plants			
	11.11.2. 2	The sitting, if necessary, of batching plants shall be done in conjunction with the Eskom PM and the ECO.	N/A	Confirmation	Batching plant off site, usage of private batching plant facility

12/ EMP 10 Bravo 4	dition Nr EA (12/20/ L096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.2. 2	Refer to TRMSCAAC1 REV 3 section 4.8 for specifications regarding batching plants.	N/A	Confirmation	Batching plant off site, usage of private batching plant facility
	11.11.2. 2	Ensure all agreements reached with the Landowner are fulfilled.	N/A	Confirmation	Batching plant off site, usage of private batching plant facility
		Sanitation			
	11.11.2. 3 11.11.9. 1	The Contractor shall install mobile chemical toilets on site (TRMSCAAC1 REV 3). The Contractor camp shall have the necessary ablution facilities with chemical toilets where such facilities are not available at commencement of construction.	Yes	Observed	Chemical toilets as well as container toilets are being used
	11.11.2.	The Contractor will be responsible for the provision of and proper utilisation, maintenance and management of toilet, wash and waste facilities. Toilet facilities supplied by the contractor for the workers shall occur at a maximum ratio of 1 toilet per 15 workers. All temporary / portable toilets shall be secured to the ground to prevent them from toppling due to wind or any other cause.	Yes	Observed	ECO still awaiting toilet service provider disposal slips
	11.11.2. 3	Prior to the establishment of the ablution facilities, the Site Manager must approve an appropriate location.	Yes	Confirmation	Confirmed that responsible parties approved locations
	11.11.2. 3	The entrances to the ablution facilities shall be adequately screened from public view.	Yes	Observed	
		Site Establishment – Contractors camp, wastewater mar	agement, Sho	wer facilities	
	11.11.2. 4	The contractor's camp shall be sited so as to cause the least amount of disturbance to adjacent landowners.	Yes	Confirmation	Contractors camps situated for minimal disturbance
	11.11.2. 4	The contractor's camp shall be fenced and the contractor shall maintain in good order all fencing for the duration of the construction activities.	Yes	Observed	
	11.11.2. 4	Site establishment shall take place in an orderly manner and all amenities shall be installed at Camp sites before the main workforce move onto site.	Yes	Observed	
	11.11.2.	The Contractor shall supply a wastewater management system that will	No	Confirmation	In progress

12/: 1 EMP 10 Bravo 4 Addeno	ition Nr EA 12/20/ .096 1637 - FEIR I - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	4	comply with legal requirements and be acceptable to Eskom. A septic tank			
	11.11.9. 1	system is recommended to ensure the best practice environmental solution.			
	11.11.2.	Where Eskom facilities are available the Contractor shall make use of such	Yes	Observed	Both site camps connected with
	4	facilities where it is viable and negotiated with the Grid.			the Grid
	11.11.2. 4	Should shower facilities be provided for the use by staff staying on site, the following controls must be imposed:  • Positioning of the shower, and specifically its discharge point, will be carried out to ensure that erosion and build up detergents does not occur;  • All discharge from the shower and other washing facilities must pass through a suitable filter to reduce the load of detergents to the environment;  • Filtered water discharge may thereafter be released to the environment, but mechanisms will be investigated to ensure that the water is evenly dispersed so as to lead to "greening up" and / or swampy conditions in one limited area;  • Use of the shower facilities must be limited to staff or authorised persons only.	N/A		No showers on site
	11.11.2. 4	The cooking area will be positioned such that no vegetation is in close proximity thereto, including overhanging trees. An area around the cooking area will be cleared such that any escaping embers will not start an uncontrolled fire.	Yes	Observed	Cooking areas confined to mobile container kitchens
		Eating Areas			
	11.11.2. 5	Eating areas shall be designated and demarcated.	No	Confirmation	Eating areas not demarcated or establish, NCR open by Eskom ESO
	11.11.2. 5	Sufficient bins shall be present in this area for all waste material.	No	Observed	Bins present but with inadequate signage and servicing

12/ EMP 10 Bravo	dition Nr EA (12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.2. 5	Dish washing facilities shall be provided. These may be very basic, but a process must be put in place to ensure that wastewater is disposed of appropriately (see Site Establishment - showers).	Yes	Observed/ Confirmation	Basic container kitchen provided
		Pre-Construction Phase Water Management (including Storm	water, Water	Sources, Wet La	ands)
	11.11.3. 1	Should water be required from sources other than Eskom supply, a written agreement shall be reached between the Contractor and the stakeholder involved.	No	Confirmation In Progress	Babcock: Using existing water source waiting for borehole registration  Conco: Waiting for Municipal confirmation of water point.
	11.11.3. 1	Should the Contractor be required to use water from a natural source, the Contractor shall supply a method statement to that effect and obtain the required permits. No construction shall take place in the wetland, streams and other river courses without the necessary water license from the Department of Water Affairs and Forestry;	Yes	Confirmation	Confirmed with ESO, no natural water would be abstracted. WUL for construction in wetlands in order.
		Pre-Construction Phase Hazardous Sub	stance Spills		
	ı	Hazardous Spills		<u> </u>	
1.14	11.11.4. 1 11.11.1	Ensure that potential hazardous materials on site are identified and documented in a register.	Yes	Confirmation / Observed	Babcock: Hazardous substances register kept and updated by store man.
	1.1				Conco: ESO keeping register
1.14	11.11.4. 1	Ensure that suitable spill kits and absorption materials are purchased prior to commencement with construction, and stored suitably in places where there is a high risk of hazardous spills occurring.	Yes	Confirmation / Observed	Hazardous spill kits kept on site and with plant working in field
		Pre-Construction Phase Delivery of I	Materials		
		Heavy Machinery			

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum — Site specific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
11.11.5.	All drivers and operators must be appropriately licensed.	Yes	Confirmation	Confirmed with ESO's
1	Pre-Construction Phase Access I	Roads		
	Access Roads			
11.11.8.	If required, planning of access routes must be done in conjunction between the Contractor and Eskom.	No	Confirmation	NCR opend by Eskom ESO
11.11.8. 1 11.11.1 7.1	All agreements reached shall be documented in writing and no verbal agreements should be made.	Yes	Confirmation / Observation	Land owner already signed for access road. New meetings to be made with Landowners, ECO ESO in regards to access road and working after hours.
11.11.8. 1 11.11.1 7.1	The condition of existing access / private roads to be used shall be documented with photographs.	No	Confirmation / Observation	Babcock: ESO confirmed that video evidence of roads to be done on the 28/11/2016 Conco: In progress
11.11.8. 1	The Contractor shall properly mark all access roads and markers shall show the direction of travel.	No	Confirmation / Observation	Babcock: In Progress in new working areas Conco: In progress
11.11.8. 1	Roads not to be used shall be marked with a " <b>NO ENTRY</b> "sign (refer also TRMSCAAC1 REV 3).	No	Confirmation / Observation	Conco: In progress
11.11.8. 1	Where required, speed limits shall be indicated and speed control measures applied on the roads.	No	Confirmation / Observation	Babcock: Outstanding Conco: Outstanding
11.11.8. 1	Water diversion berms shall be installed from the start of the contract in accordance with TRMSCAAC1 REV 3 Section 4.6.	N/A		Not applicable at this point
11.11.8. 1	Where berms are installed on severe slopes the outflow shall be suitably stone pitched to prevent erosion from starting at the base of the berm.	N/A		Not applicable at this point

12/ EMP 10 Bravo	lition Nr EA 12/20/ 1096 1637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments		
	11.11.8. 1 11.11.1 4.1	All structures shall be properly designed and drawings shall be available for reference purposes.	Yes	Confirmation	Designs received from Babcock for new gates within the servitude		
	11.11.8. 1	Permanently wet areas are shown on the profiles. No vehicular traffic shall be allowed in such areas. Only existing roads through such areas may be used with the approval of Eskom and the Landowner.	Yes	Confirmation	Drivers are only allowed to stick to roads, ESO in progress of creating access road map that also indicates wetlands		
Pre-Construction Phase Waste Management							
	l I	Refuse and Rubble Removal					
	11.11.9. 1 11.11.2. 4	A method statement is required from the Contractor that includes the layout of the camp, management of ablution facilities and waste management.	No	Observed	Conco: Method statements are all generic and needs to be revised to be site specific Babcock: Not adhering to layout plan		
1.13	11.11.9. 1	The Contractor will supply waste collection bins where such is not available and all solid waste collected shall be disposed of at a registered waste disposal facility. A certificate of disposal shall be obtained by the Contractor and kept on site. All waste generated during construction and operation of the facility must be removed and disposed of at a waste disposal facility permitted in terms of Section 20 of the Environment Conservation Act, 1989 (Act 73 of 1989);	Yes	Confirmation/ Observation	Certificates of registration waste service providers received from both contractors		
	11.11.9. 1	In the case where a registered waste site is not available close to the construction site, the Contractor will be responsible to provide a method statement with regard to waste management.	N/A	Confirmation	Waste removal to be managed by service providers		
	11.11.9. 1	Under no circumstances may solid waste be burned on site unless a suitable incinerator is available.	Yes	Confirmation/ Observation	No waste would be allowed to be burnt on site		
		Pre-Construction Phase Fire Prev	ention				

12/ 1 EMP 10 Bravo 4	lition Nr EA 12/20/ 1096 1637 - FEIR 1 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments		
		Fire Prevention					
	11.11.1 0.1	The Contractor shall have fire-fighting equipment available on all vehicles working on site.	Yes	Confirmation/ Observation			
	11.11.1	The Contractor will document a fire reduction management plan. The plan will identify sources of fire hazard, and appropriate management measures to reduce the identified risk. The relevant authority will be notified of such potential fire hazards.	Yes	Confirmation/ Observation	Babcock & Conco: Emergency plan received		
	Pre-Construction Phase Designated Storage Areas						
		Workshop, Equipment Maintenance ar	nd Storage				
	11.11.1	Where possible and practical all maintenance of vehicles and equipment shall take place in the workshop area, on a paved or concrete lined surface.	No	Confirmation/ Observation	See incident register		
	11.11.1 1.1	All hazardous substances shall be stored in suitable containers and storage areas shall be bunded. This includes all carbon substances like fuel and oil as well as herbicides and battery acid.	No	Confirmation/ Observation	NCR's issued by ESO against both contractors		
	11.11.4. 1 11.11.1 1.1	A register shall be kept on all substances and be available for inspection at all times.	Yes	Confirmation/ Observation	Babcock: At store man Conco: Maintain with safety		
		Pre-Construction Phase Tower Po	ositions				
		Tower positioning					
	11.11.1 2.1	Refer to TRMSCAAC1 REV 3 SECTION 4.4.5 for specifications concerning tower sites on slopes.	Yes	Confirmation			
1.12		Wetland, avifaunal and heritage specialist should be present during the planning and pegging of the finial route alignment to ensure that the positions of pylons result in minimum impacts on birds, heritage resources and sensitive features (wetlands and rivers)	Yes	Confirmation/ Observation	Final route alignment done in conjunction with specialist studies.		
		Pre-Construction Phase Erosion, Donga and		ngs			
		Erosion and Donga Crossings	S				

12/1 1 EMP 10 Bravo 4 Addend	ition Nr EA 12/20/ 096 1637 - FEIR 1 - Chpt 11 Ium — Site fic EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		Crossing of dongas and eroded areas shall be thoroughly planned in accordance with TRMSCAAC1 REV 3 Section 4.4.1.	N/A		
	11.11.8. 1 11.11.1 4.1	All structures shall be properly designed and drawings shall be available for reference purposes.	Yes	Confirmation/ Observation	
		River Crossings			
	11.11.1	Existing drifts and bridges may be used if the Landowner gives his consent. Such structures shall then be thoroughly examined for strength and durability before they are used.	N/A		
	11.11.1	New drifts and bridges shall only be constructed with the approval of Eskom and the Landowner and at the discretion of the Environmental Control Officer.	N/A		
	11.11.1 4.2	All structures constructed for access purposes shall be properly designed and drawings of such structures shall be available for record purposes.	N/A		
		Pre-Construction Phase Flora Management (including Vegetatio	n Clearing, G	eneral, and Herb	picides)
		Vegetation Clearing			
	11.11.1 5.1	Vegetation clearing shall be done in accordance with ESKASABG3 REV 0 (Standard for bush clearance and maintenance within overhead power line servitudes) and the Vegetation Management Guideline.	N/A		Still awaiting method statement, activity not currently going to take place
	11.11.1 5.1	The removal of all economically valuable trees or vegetation shall be negotiated with the Landowner before such vegetation is removed.	N/A		Activity yet to commence
	11.11.1 5.1	The Contractor will remove plants containing any diseases and /or pests from the site.	N/A		
		Pre-Construction Phase Fauna Man	agement		
	•	Planning			
	11.11.1	Construction planning must be undertaken prior to construction to ensure that it does not conflict with breeding seasons.	Yes	Confirmation	Constant interaction with

12/: 1 EMP 10 Bravo 4 Addeno	ition Nr EA 12/20/ 096 637 - FEIR - Chpt 11 lum – Site fic EMP	Condition	Compliance Yes/No	Audit Evidence	Comments	
	6.1				landowners	
	11.11.1 6.1	The breeding sites of raptors and other wild bird species shall be taken into consideration during the planning of the construction programme.	Yes	Confirmation		
	11.11.1 6.1	The Contractor shall take all the necessary precautions and it is recommended that sites on parallel existing lines be noted, i.e. tower numbers. This information must then be given to the avian specialist via the Environmental Advisor so that the necessary action can be taken timorously.	Yes	Confirmation	Avian specialist did line walk down study in regards to planning and EMP	
	Fencing					
	11.11.1 6.2	Ensure that suitable fencing is erected prior to the commencement of construction to ensure that live stock does not wonder into dangerous areas.	Yes	Confirmation/ Observation		
		Pre-Construction Phase Interaction with adj		ners		
		Interaction with Land Owners	s			
	11.11.1 7.1	All negotiations for any reason shall be between Eskom, the landowners and the Contractor.	Yes	Confirmation/ Observation	Constant interaction with ECO, ESO's and Site manager	
	11.11.8. 1 11.11.1 7.1	No verbal agreements shall be made. All agreements shall be recorded properly and all parties shall co-sign the documentation. It is proposed that a photographic record of access roads be kept.	Yes	Confirmation/ Observation	All agreements signed in ECO file	
	11.11.1 7.1	It is required that the Contractor will supply one person to be the liaison officer (CECO) for the entire contract, and that this person shall be available to investigate all problems arising on the work sites concerning adjacent landowners (TRMSCAAC1 REV 3).	Yes	Confirmation/ Observation	ESO's acting as liaison officer on contractor side	
		Pre-Construction Phase Infrastru	ucture			
		Planning				
	11.11.1 9.1	Demarcate all existing infrastructure on site layout plans. Document condition of existing infrastructure prior to construction.	Yes	Confirmation/ Observation	Babcock: Covered in site Method Statement	
		Pre-Construction Phase Archae	ology			

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments	
		Planning				
	11.11.2	Ensure all known sites of cultural, archaeological, and historical significance	No	Confirmation/	Babcock & Conco: ESO in	
	0.1	are demarcated on the site layout plan, and marked as no-go areas.	NO	Observation	progress with layout plan	
		Pre-Construction Phase Residential	Property			
	T 1	Planning				
	11.11.2	All private residences will be demarcated on a site layout plan prior to	No	Confirmation/	Babcock & Conco :ESO in	
	1.1	construction phase commencing.		Observation	progress with layout plan	
		Construction Phase General	<u>l</u>			
	1 1	Construction Initiation				
	11.11.1.	Ensure that the grid is considered throughout the construction phase.	Yes	Confirmation/		
	1	i i	. 55	Observation		
1.17	11.11.1. 1	Where any of the applicant's contact details change, including then name of the responsible person, the physical or postal address and/or telephonic details, the applicant must notify the Department as soon as the new details become known to the applicant.	Yes	Confirmation/ Observation		
1.18	11.11.1. 1	The holder of the authorisation must notify the Department, in writing and within 24 hours, if conditions of the authorisation cannot be or is not adhered to. In all other cases, the holder of the authorisation must notify the Department, in writing, within 48 hours if a condition of the authorisation is not adhered to. Any notification in terms of this condition must be accompanied by reasons for the Non-compliance; and Non-compliance with a condition of this  Authorisation may result in criminal prosecution or other actions as per the National Environmental Management Act, 1998 and the regulations.	N/A			
	11111	Labour Issues		Camfings at a = /		
	11.11.1.	Ensure proper supervision of employees at all times.	Yes	Confirmation/ Observation		
	Construction Phase Site Establishment and Demarcation					

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		Gate Installation and Control			
	11.11.2. 1	All gates shall be fitted with locks and be kept locked at all times.	Yes	Confirmation/ Observation	
	11.11.2. 1	Gates shall only be left open on request of the Landowner if he accepts partial responsibility for such gates in writing.	Yes	Confirmation/ Observation	
	11.11.2.	Claims arising from gates left open shall be investigated and settled in full by the Contractor.	Yes	Confirmation	
	11.11.2.	If any fencing interferes with the construction process, such fencing shall be deviated / protected until construction is completed.	Yes	Confirmation	
		Project Area			
	11.11.2.	Construction activities are limited to the area as demarcated by EA / EM within the site identified for the construction	Yes	Confirmation/ Observation	No work outside servitude have been observed
	11.11.2.	Any area outside the construction area, required to facilitate access, construction activities, construction camps or material storage areas, where necessary, shall be negotiated with the affected stakeholders and written agreements shall be obtained.	N/A		
	11.11.2.	All construction areas shall be cleared in accordance with the EA / EM Standard for Bush clearing ESKASABG3.	N/A		Activity not started yet
	11.11.2. 2	Any extra space to be cleared outside the construction area shall be negotiated and approved by EA / EM. All areas marked as no go areas inside the substation parameters shall be treated with the utmost care and responsibility.	N/A		No space to be cleared outside servitude and site camp
		Batching Plants			
	11.11.2. 3	The batching plant area shall be operated in such a way as to prevent contaminated water to run off the site and polluting nearby streams or water bodies. To this effect diversion berms can be installed to direct all wastewater to a catchments area.	N/A	Confirmation/ Observation	No Batching plant on site
		Sanitation			

Conditi E4 12/12 109 EMP 1063 Bravo 4 - Addendu specific	A 2/20/ 96 37 - FEIR - Chpt 11 ım – Site	Condition	Compliance Yes/No	Audit Evidence	Comments
1	11.11.2. 4	Staff shall be sensitised to the fact that they should use these toilets at all times. The Contractor shall inform all site staff to make use of supplied ablution facilities and under no circumstances shall indiscriminate excretion and urinating be allowed other than in supplied facilities.	Yes	Confirmation/ Observation	Staff are inducted in regards to toilet facilities and no indiscrimination observed to date
1	11.11.2. 4	No use of the veld shall be allowed, as this always creates problems with the landowners and may lead to claims for problems with stock diseases	Yes	Confirmation/ Observation	Staff are inducted in regards to toilet facilities and no indiscrimination observed to date. Mobile toilet would be moved where staff are working in the veld
1	11.11.2. 4	Toilet paper is also a source of littering, and the Contractor shall be forced to clean up any litter.	Yes	Confirmation/ Observation	
1	1.11.2. 4	Ablution facilities must be maintained in a hygienic state and serviced regularly. Toilet paper will be provided.	Yes	Confirmation/ Observation	
1	1.11.2.	The Contractor will ensure that no spillage occurs when the toilets are cleaned or emptied and that a licensed provider removes the contents from the site.	Yes	Confirmation/ Observation	
1	11.11.2. 4	Disposal of such waste is only acceptable at a licensed waste disposal facility.	Yes	Confirmation/ Observation	ECO received disposal slips from both contractors
		Site Establishment			
1	11.11.2. 5	The site must be kept tidy and hygienic at all times with special reference to sanitation & water management.	No	Confirmation/ Observation	Conco:Poor housekeeping observed
1	11.11.2. 5	Open uncontrolled fires will be forbidden at the site camp. Rather "contained" cooking mechanisms will be used – e.g. gas stoves or an enclosed braai facility.	Yes	Confirmation/ Observation	No open fires allowed or observed on site.
1	11.11.2. 5	Where possible and practical all maintenance of vehicles and equipment shall take place in the workshop area.	No	Confirmation/ Observation	See incident register

12/ 1 EMP 10 Bravo 4	dition Nr EA (12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.2. 5	Workshop areas shall be monitored for oil and fuel spills and such spills shall be cleaned and remediate to the satisfaction of the ECO.	Yes	Confirmation/ Observation	
	11.11.2. 5	The Contractor shall be in possession of an emergency spill kit that must be complete and at all times on site.	Yes	Confirmation/ Observation	Regular spill kit inspection by store man and ESO Contractors needs certified spill cleaners on site
	11.11.2. 5	No equipment shall be used which may cause irreparable damage to wet areas. The contractor shall use alternative methods of construction in such areas. Refer to TRMSCAAC1 REV 3 section 4.4.1 regarding access through seasonally wet lands.	Yes	Confirmation/ Observation	
Eating areas					
	11.11.2. 6	The feeding of, or leaving of food for animals, is strictly prohibited.	Yes	Confirmation/ Observation	
	11.11.2. 6	No fires for the purpose of cooking or warming purposes will be permitted other than within designated areas, for instance, at the site camp.	No	Confirmation/ Observation	NCR opened by Eskom ESO
		Construction Phase Water Management (including Storm w	ater, Water S	ources, Wet Lan	ds)
		Water Sources			
	11.11.3. 1	Strict control shall be maintained and the ECO shall regularly inspect the abstraction point and methods used.	Yes	Confirmation/ Observation	Babcock: Grey water at site camp from previous occupants needs to be sorted
		Wetlands			
1.7	11.11.3. 2	No construction is to take place in wetland areas. Including no vehicular traffic.	Yes	Confirmation/ Observation	
	11.11.3. 2	Only existing roads through such areas may be used with the approval of Eskom.	Yes	Confirmation/ Observation	
	11.11.3. 2	The contractor shall use alternative methods of construction in such areas.  Refer to	Yes	Confirmation/ Observation	

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
		TRMSCAAC1 REV 3 section 4.4.1 regarding access through seasonally wet lands.			
	11.11.3. 2	Berms should be created not closer than 10m from identified wetland areas, so as to ensure that no construction material and/or waste flow into wetland systems.	N/A		
		Dust Control			
	11.11.3. 3	The dust control measures, such as watering, chemical stabilisation and the reduction of surface wind speed through the use of windbreaks and source enclosures must be put in place during construction activities. Emission control efficiencies of 50% can readily be achieved through the implementation of effective watering programme for unpaved roads and material handling points.	N/A		Not applicable at this point, method statement still outstanding
		Storm Water Management			
	11.11.3. 4	Storm water shall be channelled away from construction activities.	N/A		
	11.11.3. 4	No storm water may be discharged into areas where construction is taking place.	N/A		
	11.11.3. 4	Storm water flowing from the footprint of the proposed development may not be contaminated by any substances, whether the substance is solid, liquid or vapour or any combination thereof.	N/A		
1.15	11.11.3. 4	During construction, the Contractor will protect areas susceptible to erosion by installing necessary temporary and / or permanent drainage works as soon as possible and by taking suitable measures to prevent surface water concentration into nearby roadways or river courses.	N/A		
	11.11.3. 4	Silt trap mechanisms will be installed on all temporary storm water channels.  These silt traps will be regularly checked and serviced as required.	N/A		
	11.11.3. 4	All excavated and filled slopes and stockpiles must be of a stable angle and capable of accommodating normal expected flows.	N/A		

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	11.11.3. 4	Stabilisation of cleared areas to prevent and control erosion will be actively managed. The method chosen (e.g. watering, planting, retaining structures, commercial anti-erosion compounds) will be selected according to specifics and ensure acceptable rehabilitation.	N/A		
	11.11.3. 4	Traffic and movement over stabilised areas will be restricted. Any damage to stabilised areas will be repaired and maintained to the satisfaction of the Site Manager.	N/A		
	11.11.3. 4	Where erosion and sedimentation occur, rectification will be carried out in accordance with details specified by the Site Manager.	N/A		
		Construction Phase Hazardous Sub	ostances		
		Hazardous Spills			
	11.11.4. 1	All contaminated soil / yard stone shall be removed and be placed in containers. Contaminated material can be taken to one central point where bio-remediation can be done.	Yes		
	11.11.4. 1	Smaller spills can be treated on site. (ESKASABTO)	Yes		
	11.11.4. 1	A specialist Contractor shall be used for the bioremediation of contaminated soil where the required remediation material and expertise is not available on site.	N/A		
	11.11.4. 1	All spills of hazardous substances must be reported to the ECO and appointed Transmission Engineering Environmental Advisor (Tx Key Performance Indicator requirement).	Yes		
		Construction Phase Delivery of Ma	aterials		
		Heavy Machinery			
	11.11.5. 1	No vehicles coming on sites must spill oil.	Yes	Observation	
	11.11.5. 1	No construction equipment, vehicles or unauthorised personnel will be allowed onto areas that have been re-vegetated.	Yes	Confirmation/ Observation	

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum - Site specific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	Construction Phase Building, Civil's and Stru	ictural Steel V	Vork	
	Excavated Foundations			
11.11.6. 1	During excavations no oil leaks from heavy vehicles may occur.	Yes	Confirmation/ Observation	No spills observed
11.11.6.	PPE must be used by all workers using hand tools during the excavations of foundations.	Yes	Confirmation/ Observation	Staff observed using correct PPE
11.11.6. 1	Spoil must be evenly spread.	No	Confirmation/ Observation	NCR issued by ECO
	Excavate Earth Moving Materia	als		
11.11.6. 2	During the excavation of earth materials no oil leaks may occur from heavy vehicles.	Yes	Confirmation/ Observation	No spills observed
	Concrete Mixing			
11.11.6. 3	During the mixing of concrete, concrete dust is emanated. Workers mixing concrete must wear PPE.	Yes	Confirmation/ Observation	
11.11.6. 3	Cement bags must not become litter after use. They must be disposed of in bins/skips (see Waste Management).	Yes	Confirmation/ Observation	
11.11.6. 3 11.11.6. 5 11.11.6. 7	No spills may occur. All spills should be reinstated into foundations as backfill.	Yes	Confirmation/ Observation	
	Trenches			
11.11.6. 4	All workers using hand tools must make use of PPE.	Yes	Confirmation/ Observation	
	Steelworks			
11.11.6.	Copper Earthing - All copper off-cuts must be collected for recycling	N/A		

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	6	purposes.			
	11.11.6. 8	All steel off-cuts must be collected for recycling purposes.	N/A		
	11.11.6. 8	During steel cutting and grinding, all old discs must be managed and must not become litter.	N/A		
	11.11.6. 8	During welding and brazing, all old welding rods must be managed and must not become litter.	N/A		
		Construction Phase Access Ro	ads		
		Access Roads			
	11.11.8. 1	All speed limits shall be strictly adhered to at all times.	Yes	Confirmation/ Observation	
	11.11.8. 1	Where new access roads are constructed, this must be done in accordance with TRMSCAAC1  REV 3 Section 4.4.	Yes	Confirmation/ Observation	Conco: Only one new access roads needs to be constructed
	11.11.8. 1	These berms shall be maintained at all times.	N/A		
	11.11.8. 1	No roads shall be constructed on slopes of more than 20% unless such roads follow contours.	Yes	Confirmation/ Observation	
	11.11.8. 1	In such areas the Contractor shall only use existing roads or alternative methods of construction. The Contractor shall take such areas into consideration during the tender.	Yes	Confirmation/ Observation	
	11.11.8. 1	The installation of concrete pipes and drifts, to facilitate access, shall be at the discretion of the Environmental Control Officer on site.	Yes	Confirmation/ Observation	Possible water pipe to be put in at the storage area entrance
	11.11.8. 1	Any dangerous crossings shall be marked as such and where necessary, speed limits shall be enforced.	N/A		
	11.11.8. 1	All existing private access roads used for construction purposes, shall be maintained at all times to ensure that the local people have free access to and	Yes	Confirmation/ Observation	

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP	from their properties.	Compliance Yes/No	Audit Evidence	Comments
	Construction Phase Waste Manag Refuse and Rubble Removal			
11.11.9. 1	The Contractor shall dispose of all excess material on site in an appropriate manner and at a designated place.	Yes	Confirmation/ Observation	No waste yet removed from site
11.11.9. 1	All packaging material shall be removed from site and disposed of and not burned on site.	Yes	Confirmation/ Observation	No waste yet removed from site
11.11.9. 1	No landfill may be used without the consent from the Landowner.	Yes	Confirmation	Would be dealt with service provider
11.11.9. 1	Should a landfill be used for biodegradable materials only, the rubble shall be compacted and at least 1m of soil shall cover the waste material.	Yes	Confirmation	Would be dealt with service provider
11.11.9. 1	No hazardous material, e.g. oil or diesel fuel shall be disposed of in any unregistered waste site.	Yes	Confirmation	
11.11.9. 1	No material shall be left on site that may harm man or animals.	Yes	Confirmation	
11.11.9. 1	Any broken insulators shall be removed and all shards picked up.	N/A		
11.11.9. 1	Broken, damaged and unused nuts, bolts and washers shall be picked up and removed from site.	N/A		
11.11.9.	Surplus concrete may not be dumped indiscriminately on site, but shall be disposed of in designated areas as agreed by the Landowner. Concrete trucks shall not be washed on site after depositing concrete into foundations. Any spilled concrete shall be cleaned up immediately.	No	Observation	Concrete spills around excavated areas are not being properly cleaned after cement poor
11.11.9. 1	Under no circumstances may solid waste be burned on site unless a suitable incinerator is available.	Yes	Confirmation/ Observation	
11.11.9. 1	The Contractor shall dispose of all excess material on site in an appropriate manner and at a designated place.	Yes	Confirmation/ Observation	

Condition EA 12/12/2 1096 EMP 10637 Bravo 4 - Cl Addendum specific E	20/ 5 7 - FEIR Chpt 11 1 – Site	Condition	Compliance Yes/No	Audit Evidence	Comments
11	1.11.9. 1	All packaging material must be removed from the site and disposal of and not burned on site.	N/A		
11	1.11.9. 1	Waste will be collected from site by a licensed contractor and removed to an appropriate waste disposal facility.	Yes	Confirmation	Licensees received from both contractors
11	.11.9. 1	All waste generated during construction and operation of the facility must be removed and disposed of at a waste facility permitted in terms of Section20 of the Environmental Conservation Act, 1989 (Act 73 of 1989).	N/A		No waste yet removed from site
11	1.11.9. 1	The Contractor must provide DEAT with proof of confirmation of service provision from waste service providers for the removal of wastes.	Yes		
11	1.11.9. 1	A general site-wide litter clean up will occur at least once a week.	Yes	Confirmation/ Observation	
11	1.11.9.	Littering by the employees of the Contractor shall not be <b>allowed</b> (TRMSCAAC1 REV 3 section4.1.2).	Yes		
11	.11.9. 1	Wherever possible, materials will be recycled via a "Greens waste site". To this end, containers for glass, paper, metals, plastics, organic waste and hazardous wastes (e.g. oil rags, paint containers, thinners) will be provided in sufficient quantity on the site.	N/A		
11	11.9. 1	Waste will be removed during off-peak traffic periods to minimise impacts on local traffic patterns.	N/A		
•		Construction Phase Fire Preven	tion		
	ı	Fire Prevention			
	1.11.1 0.1	Preferentially no fires will be lit on the site, if however required, fires must be limited to use for cooking and heating use only within a designated. This area will be a suitable distance from fuel sources. A fire will be constantly monitored while present.	Yes	Confirmation/ Observation	
	1.11.1 0.1	In terms of the Atmospheric Pollution Prevention (APPA), burning is not permitted for waste disposal.	Yes	Confirmation/ Observation	

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	11.11.1 0.1	Suitable precautions will be taken (e.g. suitable fire extinguisher, welding curtains) when working with welding or grinding equipment near potential sources of combustion.	Yes	Confirmation/ Observation	
	11.11.1 0.1	All fire control mechanisms (fire fighting equipment) will be routinely inspected by a qualified investigator for efficacy thereof and be approved by local fire services. Such mechanisms will be present and accessible at all times.	Yes	Confirmation/ Observation	
	11.11.1 0.1	All staff on site will be made aware of general fire prevention and control methods, and the name of the responsible person to alert to the presence of a fire.	Yes	Confirmation/ Observation	
	11.11.1 0.1	The Contractor will advise the relevant authority of a fire outside of a demarcated area as soon as it starts and will not wait until he can no longer control it.	Yes	Confirmation/ Observation	
		Construction Phase Designated Store Workshop, Equipment Maintenance ar			
	11.11.1	Servicing of vehicles within servitude perimeters is strictly prohibited.	No No	Confirmation/ Observation	See incident register
	11.11.1 1.1	Only emergency repairs shall be allowed on site and a drip tray shall be used to prevent oil spills.	No	Confirmation/ Observation	See incident register
	11.11.1 1.1	In the event of a breakdown within the servitude perimeter, any oil spills shall be cleaned up immediately and appropriate environmental investigations undertaken and recorded.  The following shall apply:  • All contaminated soil shall be removed and be placed in containers.  Contaminated soil can be taken to one central point at the Contractors	No	Confirmation/ Observation	See incident register
		campsite where bio-remediation can be done;  • Smaller spills can be treated on site;			

12/ 1 EMP 10 Bravo 4	dition Nr EA 12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		<ul> <li>A specialist Contractor shall be used for the bio-remediation of contaminated soil</li> <li>The area around the fuel storage drum at the Contractor's campsite shall also be re-mediated upon completion of the contract</li> <li>All oil spills must be reported to ECO immediately.</li> </ul>			
	11.11.1 1.1	Under no circumstances shall such waste be buried on site indiscriminately.	Yes	Confirmation/ Observation	
	11.11.1 1.1	No maintenance or repair of construction vehicles or machinery will occur on site during the construction phase. Maintenance of equipment and vehicles will be preformed off-site at a suitably designed workshop.	No	Confirmation/ Observation	See incident register
	11.11.1 1.1	Movement of construction vehicles and machinery must be restricted to areas outside of sensitive areas on site.	Yes	Confirmation/ Observation	
	11.11.1 1.1	No washing of plant may occur on the site.	Yes	Confirmation/ Observation	
1.14	11.11.1 1.1	The contractor will ensure that if emergency plant maintenance occurs on site, that there is no contamination of soil or vegetation (e.g. use of drip trays).	Yes	Confirmation/ Observation	
	11.11.1 1.1	Drip trays will be provided for the stationary plant and for the "parked" plant.	Yes	Confirmation/ Observation	
	11.11.1 1.1	All vehicles and equipment will be kept in good working order and serviced regularly. Leaking equipment will be repaired immediately or removed from the site.	Yes	Confirmation/ Observation	
	11.11.1 1.1	The relevant contractor must ensure that facilities for the collection of hydraulic and other vehicle oils are provided within the hard park area.	No	Confirmation/ Observation	
	11.11.1 1.1	The repair of construction vehicles must be done on a paved surface to avoid leaking oils sipping into the ground.	No	Confirmation/ Observation	
		Materials Use, Handling and Stor	rage		

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum - Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.1	The Contractor will ensure that delivery drivers are informed of all procedures and restrictions required by this document. Such drivers will be supervised during off-loading, by a person knowledgeable of the requirements.	Yes	Confirmation	
	11.11.1 1.2	Materials will be appropriately secured to ensure safe passage between destinations. Loose loads (e.g. sand, stone chip, fine vegetation, refuse, paper and cement) will be covered.	Yes	Confirmation/ Observation	
	11.11.1 1.2	The Contractor will be responsible for any cleanup resulting from the failure by his employees or suppliers to properly secure transported materials.	Yes	Confirmation	
	11.11.1 1.2	All material lay-down areas and stockpiles will be subject to the Site Manager's approval.	Yes	Observation	
	11.11.1 1.2	Imported fill / soil / sand materials will be free of weeds, litter and contaminants.	N/A		
	11.11.1 1.2	Storage areas will be roofed in an impervious material, with a suitable overhang or side cladding. Rainwater run-off will be channelled away from the storage area as required.	Yes	Confirmation/ Observation	
	11.11.1	Hydraulic fluids are stored in concrete lined surfaces with bund walls and must be designated in such a manner that any spillages can be contained and reclaimed without any impact on the surrounding environment.	No		NCR's opened against both contractors Babcock: Still busy constructing bunded storage area  Conco: Busy constructing storage area. ESO confirmed that it would be in place on the 25/11/2016, this however is not the case
	11.11.1	Hazardous and flammable substances must be stored and used in compliance with applicable regulations and safety instructions.	No		See comment above

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	1.2				
	11.11.1 1.2	During servicing of vehicles or equipment, a suitable drip tray shall be used to prevent spills onto the soil, especially where emergency repairs are effected outside the workshop area.	No	Confirmation/ Observation	See incident register
	11.11.1 1.2	Leaking equipment shall be repaired immediately or be removed from site to facilitate repair.	Yes	Confirmation/ Observation	Not observed at this time
	11.11.1 1.2	Areas shall be monitored for spills and any spills shall be contained, cleaned and rehabilitated immediately.	Yes	Confirmation/ Observation	
	11.11.1 1.2	Any leaking containers shall be repaired or removed from site.	Yes	Confirmation/ Observation	
		Construction Phase Tower Posi	tions		
	1	Tower Positioning			
	11.11.1 2.1	Disturbance of topsoil on tower sites with severe slopes shall be minimised at all costs.	Yes	Confirmation/ Observation	
	11.11.1 2.1	At any tower sites where conventional foundations are installed, the Contractor shall remove the topsoil separately and store it for later use during rehabilitation of such tower sites.	Yes	Confirmation/ Observation	
	11.11.1 2.1	During backfilling operations, the Contractor shall take care not to dump the topsoil in the bottom of the foundation and then put spoil on top of that.	No	Confirmation/ Observation	NCR opened against Conco regarding backfilling
	11.11.1 2.1	In accordance with the Conservation of Agricultural Resources Act, No 43 of 1983, slopes in excess of 2% must be contoured and slopes in excess of 12% must be terraced.	Yes	Confirmation/ Observation	
	11.11.1	Contour banks shall be spaced according to the slope on tower sites. The type of soil shall also be taken into consideration.	Yes	Confirmation	
		Construction Phase Claims from D	amages		
		Claims from Damages			
	11.11.1	All damage to Eskom property shall be recorded immediately.	No	Confirmation	Babcock: Two gate poles

Condition EA 12/12/2 1096 EMP 10637 Bravo 4 - Ch Addendum specific E	20/ 5 7 - FEIR Chpt 11 1 - Site	Condition	Compliance Yes/No	Audit Evidence	Comments
	3.1				damaged by trucks and not reported
	1.11.1 3.1	The Environmental Control Officer should also keep a photographic record of such damage.	Yes	Confirmation	
	1.11.1 3.1	The date, time of damage, type of damage and reason for the damage shall be recorded in full to ensure the responsible party is held liable.	No	Confirmation	See above
	1.11.1 3.1	All claims for damage should be directed to the Environmental Control Officer for appraisal.	Yes	Confirmation	
	1.11.1 3.1	The Contractor shall be held liable for all unnecessary damage to Eskom property.	Yes	Confirmation	
	1.11.1 3.1	A register shall be kept of all complaints from Landowners.	Yes	Confirmation	
	1.11.1 3.1	All claims shall be handled immediately to ensure timorous rectification / payment.	Yes	Confirmation	
		Construction Phase Erosion, Donga and R		şs	
		Erosion and Donga Crossings	3		
	1.11.1 4.1	Water diversion berms shall be installed at donga crossings to ensure runoff water on the servitude does not run into dongas and cause an erosion hazard.	N/A		
	1.11.1 4.1	Suitable erosion containment structures shall be constructed at donga crossings where required and viable.	N/A		
	1.11.1 4.1	No unplanned / improperly planned cutting of donga embankments is allowed as this leads to erosion and degradation of the environment.	N/A		
		River Crossings			
	1.11.1 4.2	No roads shall be cut through river and stream banks as this may lead to erosion causing siltation of streams and downstream dams.	N/A		
•		Construction Phase Flora Management (including Vegetation	Clearing, Ger	eral, and Herbic	ides)
		Vegetation Clearing			

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.1 5.1	Only an 8m strip may be cleared flush with the ground to allow vehicular passage during construction.	Yes	Confirmation	
1.11	11.11.1 5.1	The removal of indigenous plant material from the site or surrounding and adjacent land will not be allowed.	Yes	Confirmation	
	11.11.1 5.1	No scalping shall be allowed on any part of the servitude road unless absolutely necessary.	Yes	Confirmation	
	11.11.1 5.1	All trees and vegetation cleared from the site shall be cut into manageable lengths and neatly stacked at regular intervals along the line.	N/A		No trees or bush clearing currently taking place
	11.11.1 5.1	No vegetation shall be pushed into heaps or left lying all over the servitude.	Yes	Confirmation	
	11.11.1 5.1	Vegetation clearing on tower sites must be kept to a minimum.	Yes	Confirmation	
	11.11.1 5.1	Big trees with large root systems shall be cut manually and removed, as the use of a bulldozer will cause major damage to the soil when the root systems are removed.	N/A		No trees or bush clearing currently taking place
	11.11.1 5.1	Stumps shall be treated with herbicide.	N/A		No trees or bush clearing currently taking place
	11.11.1 5.1	Smaller vegetation can be flattened with a machine, but the blade should be kept above ground level to prevent scalping.	Yes		
	11.11.1 5.1	Any vegetation cleared on a tower site shall be removed or flattened and not be pushed to form an embankment around the tower.	Yes		
	11.11.1 5.1	No vegetation clearing in the form of destumping, scalping or uprooting shall be allowed on river and stream banks.	N/A		No trees or bush clearing currently taking place
	11.11.1 5.1	Vegetation shall only be cut to allow for the passage of the pilot-cables and headboard.	N/A		No trees or bush clearing currently taking place
	11.11.1 5.1	No vegetation clearing shall be allowed across ravines and gullies, as this vegetation will very rarely interfere with the clearance to the strung	N/A		

12/ 1 EMP 10 Bravo 4	lition Nr EA 12/20/ 1096 1637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		conductor.			
1.11	11.11.1 5.1	Trees and vegetation not interfering with the statutory clearance to the conductors can be left under the line.	Yes	Confirmation	
	11.11.1 5.1	Dense vegetation under the line which could cause a fire hazard, particularly in the middle third of the span in the vicinity of the lowest point of the conductors, will be considered as a separate case.	Yes	Confirmation	
	11.11.1 5.1	With permission of the landowner, the total servitude under the line and up to 5m outside the outer phases can be cleared.	Yes	Confirmation	
	11.11.1 5.1	Protected or endangered species of plants shall not be removed unless they are interfering with a structure.	Yes		Endangered species identified at Tower 143 and needs to be relocated
	11.11.1	Where such species have to be removed due to interference with a structure, the necessary permission and permits shall be obtained from Provincial Nature Conservation.	Yes		See comment above, awaiting relocation permit
	11.11.1 5.1	All protected species not to be removed must be clearly marked and such areas fenced off if required.	Yes		Work postponed at specific area
	11.11.1 5.1	The use of herbicides shall only be allowed after a proper investigation into the necessity, the type to be used, the long-term effects and the effectiveness of the agent. Eskom's approval for the use of herbicides is mandatory (Contact Dr. Eugene van Rensburg—Vegetation Management).	N/A		No herbicides are being conceded at this point
	11.11.1 5.1	Application shall be under the direct supervision of a qualified technician. All surplus herbicide shall be disposed of in accordance with the supplier's specifications.	N/A		No herbicides are being conceded at this point
	11.11.1 5.1	Upon completion of the stringing operations and before handover, the servitude must be inspected and all vegetation interfering with the safe operation of the line shall be removed / cut down.	N/A		To be done at later point
	11.11.1	All alien vegetation in the total servitude and densifiers creating a fire hazard	N/A		

12/ 1 EMP 10 Bravo 4 Addeno	lition Nr EA 12/20/ .096 1637 - FEIR 1 - Chpt 11 dum — Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	5.1	shall be cleared and treated with herbicides. (Refer to the Vegetation			
		Management Guideline attached).  • The application shall be according to set specifications and under supervision of a qualified technician.			
		• The possibility of leaching into the surrounding environment shall be properly investigated and only environmentally friendly herbicides shall be used.			
	11.11.1 5.1	It is recommended that a contractor for vegetation clearing should comply with the following parameters:  • The contractor must have the necessary knowledge to be able to identify protected species as well as species not to be interfering with;  • The operation of the line due to their height and growth rate;  • The contractor must also be able to identify declared weeds and alien species that can be totally eradicated; and  • The contractor must be in possession of a valid herbicide applicators license.  The removal of protected vegetation and medicinal plants during construction	Yes	Confirmation/ Observations	Areas are constantly inspected by ECO and ESO's
	11.11.1 5.1	must be done in consultation with the provincial environmental authorities, and the appropriate post construction rehabilitation measures must be implemented in cooperation with the provincial environmental authorities.	Yes	Confirmation	
		Harvesting of Medicinal Plant	S		
	11.11.1 5.2	The removal of protected vegetation and medicinal plants during construction must be done in consultation with the provincial environmental authorities, and the appropriate post-construction rehabilitation measures must be implemented in cooperation with the provincial environmental authorities.	Yes		
	11.11.1 5.2	Should Medicinal Plants be found on site, these plants will be demarcated and cordoned off.	N/A		No species identified to date
	11.11.1	Once demarcated, they will be removed and relocated to an established	N/A		No species identified to date

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum - Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
	5.2	nursery. The plants shall be removed by a certified Nursery with experience in the handling and translocation of plants. The South African National Biodiversity Institute (SANBI) shall be contacted for assistance should a certified nursery not be available.			
		Protection of Indigenous Vegeta	tion		
1.11	11.11.1 5.3	Removal of indigenous plant material from the site or surrounding and adjacent land will not be allowed.	Yes	Confirmation	
	11.11.1 5.3	Only indigenous vegetation is to be used in any landscaping which may be undertaken.	Yes	Confirmation	
		Search and Rescue of Endangered Plan	nt Species		
	11.11.1 5.4	Should Protected or Endangered Plant Species be found on site they will be demarcated and cordoned off. An Ecological Management Plan will be compiled and submitted to DEAT for approval. The Ecological Management Plan will include the following:  • Ensure the persistence of the plant species;  • Include a monitoring programme that monitors the size, stage structure and vigour of the plant species population and threats to the population;  • Facilitate/augment natural ecological processes such as fire and herbivory;  • Provide for the habitat and life history needs of important pollinators;  • Minimise artificial edge effects (e.g. water runoff from developed areas and application of chemicals;  • Include an ongoing monitoring and eradication programme for non indigenous/ alien invasive species;  • Result in a Report to be submitted to the relevant authority (GDACE, DEAT, etc)  • Where feasible, appropriate genetic material such as seeds or propagules of the plant species shall be collected and stored at a licensed facility  • In situ conservation of Protected and Endangered Plant Species is	Yes		

12/: 1 EMP 10 Bravo 4 Addeno	ition Nr EA 12/20/ .096 1637 - FEIR I - Chpt 11 dum – Site Ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		preferable to ex situ conservation. Thus, should the plant species not "interfere" with the construction of a structure, the area surrounding the plant species shall be declared a "no-go" area as outlined in the Ecological Management Plan. The area surrounding the plant species shall be declared a "No-go" area and a buffer zone will be applied as outlined in the Ecological Management Plan.			
		Alien Plant Control and Monitor	ring		
	11.11.1 5.5	The Developer will be responsible for controlling all alien invasive species, as per the requirements of the Conservation of Agricultural Resources Act (CARA), during the contract and vegetation establishment period.	Yes		
	11.11.1 5.5	All exotic trees will be identified and marked.	N/A		
	11.11.1 5.5	Alien invasive plant material will be preferentially removed in entirety through mechanical means (e.g. chainsaw, bulldozer, hand-pulling of smaller specimens)	N/A		
	11.11.1 5.5	The exotic trees must be cut down leaving the stumps behind to ensure that soil erosion is prevented. The trees can be chipped on site and the chips seeded with indigenous vegetation and spread over the site to allow for regrowth and to reduce erosion potential.	N/A		
	11.11.1 5.5	Immediately after being cut, an herbicide solution must be applied to the exotic trees to ensure no further growth. The person applying the herbicide must have read and understood the instructions. Care must be taken that there is no spillage of solution in the wetland and that the correct protective equipment must be used.	N/A		
	11.11.1 5.5	If plants are not removed in entirety but cut-back and systematically treated with approved herbicides, then remaining plant will be monitored for regrowth / re-establishment.	N/A		
	11.11.1	Herbicides used must be approved by authorities and as per the supplier's	N/A		

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments			
	5.5	specifications.  Alien invasive plant material will not be stockpiled. All such material						
	11.11.1 5.5	removed will be removed from the site and dumped at an approved disposal site.	N/A					
	11.11.1 5.5	If during the establishment period any noxious or excessive weed growth occurs, such vegetation will be removed and It is the developer's responsibility to implement a monitoring programme that will be instituted to ensure that re-growth of alien invasive plants species does not occur, or that such re-growth is controlled.	N/A					
	Construction Phase Fauna Management							
		Construction						
	11.11.1 6.1	The Contractor's workforce will have to be very careful not to disturb the animals as this may lead to fatalities which will give rise to claims from the Landowners.	Yes	Confirmation/ Observation	All staff inducted not to interfere with animals			
	11.11.1 6.1	The Contractor shall under no circumstances interfere with livestock without the Landowner being present. This includes the moving of livestock where they interfere with construction activities.	Yes	Confirmation/ Observation	Workforce inducted not to interfere with livestock			
	11.11.1 6.1	Should the Contractors workforce obtain any livestock for eating purposes, they must be in possession of a written note from the Landowner.	N/A					
	11.11.1 6.1	Should any new sites or nests be found, during the construction process, that was not known or have been noted before, each site shall be assessed for merit and the necessary precautions be taken to ensure the least disturbance.	Yes	Confirmation/ Observation	ECO and ESO's constantly inspect the working sites			
1.9	11.11.1 6.1	Bird collision prevention measures (Bird Flappers) should be installed on all the lines that form part of the application.	N/A		Activity would commence at later stage			
		Construction Phase Interaction with adjac		ers				
		Interaction with Land Owners	S	1				
	7.1	The construction process will use the services of the Power Station Environmental Monitoring / Management Committee (EMC) for	Yes	Confirmation				

12/ 1 EMP 10 Bravo 4 Addeno	lition Nr EA 12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
		communication with the land owners.			
	11.11.1 7.1	Any claims instituted by the Landowners shall be investigated and treated promptly. Unnecessary delays should be avoided at all costs.	Yes	Confirmation	
	11.11.1 7.1	Landowners shall always be kept informed about any changes to the construction programme should they be involved. If Eskom's Environmental Control Officer is not on site the Contractor's Environmental Control Officer should keep the Landowners informed.	Yes	Confirmation/ Observation	Landowners are informed of activities taking place by either the ECO, EO or site manager
	11.11.1 7.1	The contact numbers of the Contractor's ESO and the Eskom ECO shall be made available to the Landowners.	Yes	Confirmation/ Observation	
	11.11.1 7.1	All contact with the Landowners shall be courteous at all times.	Yes	Confirmation/ Observation	
	11.11.1 7.1	The rights of the Landowners shall be respected at all times and all staff shall be sensitised to the effect that we are working on private property.	Yes	Confirmation/ Observation	
		Construction Phase Noise / Workin	g Hours		
		Noise			
	11.11.1 8.1	In order to prevent noise impacts resulting from construction activities, working hours are to be limited to weekdays between 7h00 to 17h00.	Yes	Confirmation	Permission from landowners to work after hours
	11.11.1 8.1	If certain construction requires work outside of these hours, all adjacent landowners have to be informed prior to any construction outside of the specified hours commencing.	Yes	Confirmation	Permission from landowners to work after hours
	11.11.1 8.1	If there are complaints about low frequency noise after the refurbishment, Eskom would have to get a noise expert to do measurements and recommend mitigation.	N/A	Confirmation	
		Construction Phase Infrastruct	ture		
		Construction Activities			
	11.11.1 9.1	All existing private access roads used for construction purposes, shall be maintained at all times to ensure that the local people have free access to and from their properties.	Yes	Confirmation	

12/ 1 EMP 10 Bravo 4	lition Nr EA 12/20/ 1096 1637 - FEIR 1 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	11.11.1 9.1	Speed limits shall be enforced in such areas and all drivers shall be sensitised to this effect.	Yes	Confirmation	
		Construction Phase Archaeolo	ogy		
		Emergency Response			
1.8	11.11.2 0.1	Should any heritage resources be exposed during excavation for the purpose of construction, construction in the vicinity of the finding must be stopped.	Yes	Confirmation	Grave site indentified at towerKeZe134 during specialist walk down – This grave can't be located. Possible grave identified at tower 129
1.8	11.11.2 0.1	Should any heritage resources be exposed during excavation or be found on site, a registered heritage specialist must be called to site for inspection.	Yes	Confirmation	
1.8	11.11.2 0.1	Should any heritage resources be exposed during excavation or be found on site, the relevant heritage resource agency must be informed about the finding;	Yes	Confirmation	
1.8	11.11.2 0.1	Under no circumstances may any heritage material be destroyed or removed form site	Yes	Confirmation	
	11.11.2 0.1	Should remains and/or artefacts be discovered on the site during earthworks, all work will cease in the area affected and the Contractor will immediately inform the Construction Manager.	Yes	Confirmation	
	11.11.2 0.1	Should any remains be found on site that is potentially human remains, the South African Police Service should also be contacted.	Yes	Confirmation	
		Construction Phase Residential Pr	roperty		
		Construction Execution			
	11.11.2 1.1	The Contractor shall under no circumstances interfere with the property of adjacent landowners.	Yes	Confirmation/ Observation	
	11.11.2 1.1	If water is required, the Contractor shall negotiate with the relevant Landowner and a written agreement shall be drawn up (TRMSCAAC1 REV	No	Confirmation	Babcock: using existing borehole from landowner,

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP	Condition  3 section 4.8).	Compliance Yes/No	Audit Evidence	Comments  awaiting written agreement
	Rehabilitation Phase Site Establishment ar	nd Domonosti	an an	awaiting written agreement
	Batching Plants	iu Demarcan	UII	
11.11.2.	All areas used as batching areas must be rehabilitated once construction is completed. Should any claim be instituted against EA / EM, due to the actions of the Contractor at a batching plant site, EA / EM shall hold the Contractor fully responsible for the claim until such time that the Contractor can prove otherwise with the necessary documentation.	N/A		
	Site Decommissioning			
11.11.2. 2	All areas where site infrastructure or camp sites are established must be rehabilitated to their original state in which they were found.	N/A		
11.11.2. 2	Prior to the removal of structures an assessment of the end land use will be undertaken to determine which structures will be removed or retained.	N/A		
11.11.2. 2	Any specific requirements to prevent pollution during demolition of structures must be identified prior to the commencement of rehabilitation activities.	N/A		
11.11.2. 2	Disposal requirements must be identified prior to the commencement of rehabilitation or structure removal.	N/A		
11.11.2. 2	Equipment, structures and building material that can be reused will be identified prior to the commencement of rehabilitation activities.	N/A		
11.11.2. 2	Scrap metal and equipment will be sold as scrap or disposed of at a suitably licensed facility.	N/A		
11.11.2. 2	Vegetation that was removed for the establishment of site infrastructure shall be reinstated into the area.	N/A		
·	Rehabilitation Phase Water Mana	gement		
	Storm Water Management			
11.11.3.	Any runnels or erosion channels will be backfilled and compacted, and the	N/A		

Condition N EA 12/12/20/ 1096 EMP 10637 - F Bravo 4 - Chpt Addendum - S specific EMI	1 e	Compliance Yes/No	Audit Evidence	Comments
1	areas restored to a proper condition.			
	Rehabilitation Phase Hazardous S	ubstance		
	Hazardous Spills	<u> </u>	1	
11.11	4. Ensure that rehabilitated areas are free of visible spills and are suitably vegetated.	N/A		
	Rehabilitation Phase Delivery of M	<b>Iaterials</b>		
	Heavy Machinery			
11.11	5. All areas where heavy machinery has access must be rehabilitated in terms of soil pollution.	N/A		
	Rehabilitation Phase Building, Civil's and Str	ructural Steel	Work	
	De-establish Contractors Yard /	Store		
11.11	6. All waste, garbage, surplus materials and oils spills to be cleared and site must be rehabilitated.	N/A		
	Final Inspection			
11.12	6. During site inspection the site is to be cleared and rehabilitated back to its original state.	N/A		
	Rehabilitation Phase Circuit Breakers and Cu	rrent Transfo	rmers	
	Clear site	_		
11.13	7. The site must be cleared and rehabilitated so that there is no damage to the surrounding infrastructure.	N/A		
11.13	7. All personal must be suitably accredited to perform duties.	N/A		
11.11	7. All cable cut offs must be collected and sent for recycling.	N/A		
11.13	7. All waste, garbage, scrap and oil spill must be disposed of (see Waste Management). The site must be cleared and rehabilitated.	N/A		
'	Final Inspection	•	·	

12/ 1 EMP 10 Bravo 4	lition Nr EA 12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition  During site in an extend the site is to be about a set whility and be about a site.	Compliance Yes/No	Audit Evidence	Comments			
	11.11.7. 2	During site inspection the site is to be cleared and rehabilitated back to its original state.	N/A					
		Rehabilitation Phase Access Ro	oads					
	1 1	Access Roads		T				
	11.11.8. 1	Berms must be repaired at the end of the contract.	N/A					
	11.11.8. 1	Upon completion of the project all roads shall be repaired to their original state.	N/A					
	Rehabilitation Phase Waste Management							
	T	Refuse and Rubble Removal		l				
	11.11.9. 1	Same as construction phase.	N/A					
		Rehabilitation Phase Tower Posi	itions					
		Tower Positioning						
	11.11.1 2.1	Re-seeding shall be done on disturbed areas as directed by the Environmental Control Officer.	N/A					
	11.11.1 2.1	Other methods of rehabilitation of tower sites may also be used at the discretion of the Environmental Control Officer, e.g. stone pitching, logging, etc.	N/A					
1.10	11.11.1 2.1	A mixture of seed can be used provided the mixture is carefully selected to ensure the following:  Annual and perennial plants are chosen Pioneer species are included Plants shall not be edible; Species chosen will grow in the area without many problems Root systems must have a binding effect on the soil and the final product should not cause an ecological imbalance in the area.	N/A					

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
1.10	11.11.1 2.1	To get the best results in a specific area, it is a good idea to consult with a vegetation specialist or the local extension officer of the Dept of Agriculture. Seed distributors can also give valuable advice as to the mixtures and amount of seed necessary to seed a certain area. Re seeding, as well as fencing in of badly damaged areas, will always be at the discretion of the Environmental Control Officer, unless specifically requested by a Landowner.	N/A		
		Rehabilitation Phase Flora Manag			
		Traffic on Rehabilitated Areas	S		
	11.11.1 5.1	If disturbed areas are left to rehabilitate naturally, they must be frequently monitored and interventions put in place immediately should it become necessary. Special attention must be given to the potential for soil erosion and the associated environmental degradation. It is also essential to undertake alien vegetation control and management.	N/A		
	11.11.1 5.1	No construction equipment, vehicles or unauthorised personnel will be allowed onto areas that have been re-vegetated	N/A		
	11.11.1 5.1	Only persons / equipment required for maintenance thereof will be allowed to operate on such areas.	N/A		
		Plant Material			
	11.11.1 5.2	All plant material used on site will be obtained from an approved nursery.	N/A		
	11.11.1 5.2	The Contractor will remove plants containing any diseases and/or pests from the site.	N/A		
	11.11.1 5.2	Propagation of suitable indigenous vegetation that is quick to establish such as grasses, should be encouraged in areas where vegetation has been removed. On planting, there will be sufficient topsoil around each plant to prevent desiccation of the root system. Where plants are stored on site prior to planting they will be maintained to ensure that the root systems remain moist and each plant brought onto site will be handled and packed in an	N/A		

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum – Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
		approved manner for that species or variety, and that all necessary precautions are taken to ensure that the plants on the site in a proper condition for successful growth (e.g. good plant specimens chosen, disease and/or pest free, potting material weed free, plants covered during transportation, containers in good condition)			
		Reseeding of Disturbed Areas	S		
	11.11.1 5.3	All reseeding activities will be undertaken at the end of the dry season (middle to end September) to ensure optimal conditions for germination and rapid vegetation establishment.	N/A		
1.10	11.11.1 5.3	The seed mix will be approved by the ECO prior to seeding.	N/A		
	11.11.1 5.3	Seeds should be covered by use of an agricultural roller or similar mechanism.	N/A		
	11.11.1 5.3	Inspect rehabilitated area at three monthly intervals during the first and second growing season to determine the efficacy of rehabilitation measures and take appropriate remedial action where vegetation establishment has not been successful or erosion is evident within the first two growing seasons.	N/A		
	ı	Alien Plant Control and Monitor	ring		
	11.11.1 5.4	Alien plant control will be conducted as described in Section 5.14, for a period of two years after the rehabilitation phase is completed.	N/A		
		Soil and Land Capability			
	11.11.1 5.5	All excess building material and rubble must be collected and disposed of at a suitably registered landfill site.	N/A		
	11.11.1 5.5	Soils must be ripped to refusal or a minimum of 300mm prior to seeding.	N/A		
	11.11.1 5.5	All areas must be profiled to tie in with adjacent terrain. Where necessary suitable soil must be imported obtain a suitable profile.	N/A		
	11.11.1	Suitable erosion control measures must be installed in areas where erosion	N/A		

Cond	dition Nr				
EMP 10 Bravo d Adden	EA (12/20/ 1096 0637 - FEIR 4 - Chpt 11 dum – Site ific EMP	Condition	Compliance Yes/No	Audit Evidence	Comments
	5.5	may occur.			
	11.11.1 5.5	Apply a suitable mixture of N:P:K fertiliser prior to seeding.	N/A		
	11.11.1 5.5	Harrow the disturbed areas after spreading the topsoil and fertilizer uniformly.	N/A		
	11.11.1 5.5	Rehabilitated and profiled areas must be inspected for erosion every three months for the first two years. Additional measures must be implemented to remediate erosion where it is observed.	N/A		
		Rehabilitation Phase Fauna Mana	gement		
		Construction			
	11.11.1 6.1	Same as Construction Phase.	N/A		
	'	Rehabilitation Phase Interaction with adjacent	cent landown	ers	
		Interaction with Land Owners	S		
	11.11.1 7.1	Same as Construction Phase	N/A		
		Rehabilitation Phase Noise / Workin	ng Hours		
		Noise	<u>,                                      </u>		
	11.11.1 8.1	Same as Construction Phase.	N/A		
		Rehabilitation Phase Infrastruc			
		Re-instate all Roads and Infrastruc	cture.		
	11.11.1 9.1	Upon completion of the project all roads and infrastructure shall be repaired to their original state.	N/A		
		Rehabilitation Phase Archaeol	ogy		
	11.11.2 0.1	Same as construction phase.	N/A		

Condition Nr EA 12/12/20/ 1096 EMP 10637 - FEIR Bravo 4 - Chpt 11 Addendum - Site specific EMP		Condition	Compliance Yes/No	Audit Evidence	Comments
Rehabilitation Phase Residential Property					
	11.11.2 1.1	Same as construction phase	N/A		