ADDENDUM TO

PHASE 1 HERITAGE IMPACT ASSSESSMENT MULALO MAIN TRANSMISSION SUBSTATION AND ASSOCIATED POWER LINES PROJECT, SECUNDA, MPUMALANGA PROVINCE

23 AUGUST 2019

CLIENT: Margen Industrial Services

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1. BACKGROUND INFORMATION

It had been established that the existing Sol Main Transmission Substation (MTS) supplying the Secunda area was operating at full capacity and was not be capable of sustaining future load growth. Eskom Holdings SOC Limited (Eskom) decided that in order to address the above needs, a new 400/132kV MTS (Mulalo MTS) would be built that would be integrated with the existing power network through loop-in-out connections on existing transmission and distribution power lines. In November 2016, Jean Beater of JLB Consulting, undertook the site inspection for the Phase 1 Heritage Impact Assessment (HIA) for the proposed Mulalo 400/132kV MTS and associated power lines. Two sites, namely sites B and C, were provided at the time of the heritage study as potential locations for the proposed MTS.

1.1. LOCATION

The project is situated within the Govan Mbeki Local Municipality which is located within the Gert Sibande District Municipality in the Mpumalanga Province. The study area is situated south of the town of Secunda with the potential substation sites situated south east of eMbalenhle and south of the Sasol Refinery.

1.2 RECOMMENDATIONS OF PHASE 1 HIA: SUBSTATION SITES

Site B was recommended as the preferred location for the proposed substation as the site is highly disturbed by farming activities and no heritage sites were found during the site inspection.

Several graves were found on Site C as well as the remains of structures. Both the graves and the structures are over 60 years and therefore protected by the National Heritage Resources Act (NHRA), No. 25 of 1999. The presence of the graves and remains of structures was the reason for the preference for Site B.

2. CURRENT SITUATION

Eskom has now determined that Site B is no longer a viable option for the proposed substation and that Site C should be considered for the substation. Eskom Substation Engineering indicated in a letter titled "*Mulalo 400/132 kV Main Transmission Substation Comparison of Site B and Site C for Operational Safety and Reliability*" that Site B is no longer viable for the following reasons:

- Mining records indicate that Site B is undermined on three sides of the property and the accuracy of the mined-out area is doubtful. This poses a subsidence risk to the proposed new substation.
- The location of the undermined areas severely limits the substation layout and will limit any potential future expansion of the substation.
- The potential of coal burning and resulting subsidence is considered very high at Site B.
- The long parallel underpasses required for conductor connection will require additional infrastructure at Site B and will thus incur substantial additional costs.
- The required layout of the new substation at Site B would result in difficult maintenance, complicated connections and may result in unreliable supply of electricity to Sasol.
- The construction of the substation at Site C will shorten the 400 kV lines slightly which will result in a more optimal use of land and reduced costs.

In response to this, the National Department of Environmental Affairs, in a letter dated 19 March 2019, ref. 14/12/16/3/3/2/1059/AM1, requested specialist input with regard to the suitability of Site C for the project including input from the heritage specialist. In addition, the Department noted in the above letter that input from SAHRA regarding the project had not been received by the Department, therefore comment or input from the heritage authorities must form part of the final amendment report. This issue is addressed in Section 4 of this addendum report.

2.1 Heritage response and recommendations

Both the graves and the remains of structures fall within the footprint of Site C. All human remains have high heritage significance at all levels for their spiritual, social and cultural values. Graves and burial sites are protected by section 36 of the NHRA which states that: (1) where it is not the responsibility of any other authority, SAHRA must conserve and generally care for burial grounds and graves protected in terms of this section, and it may make such arrangements for their conservation as it sees fit.

In addition, subsection (3) (b) of section 36 states that no person may, without a permit issued by SAHRA or a provincial heritage resources authority— (b) destroy, damage, alter, exhume, remove from its original position or otherwise disturb any grave or burial ground older than 60 years which is situated outside a formal cemetery administered by a local authority.

It is strongly recommended that the graves on Site C are not relocated as graves are highly significant to people and there are many traditional, cultural and personal sensitivities and norms concerning the removal of graves. As recommended in the Phase 1 HIA, the proposed footprint of the new substation should be moved northwards by 200 m to ensure their protection.

The moving of the substation northwards should also avoid impacting the structures. As the remains are deemed to be over 60 years, they are protected by section 34 (1) of the NHRA which states that no person may alter or demolish any structure or part of a structure which is older than 60 years without a permit issued by the relevant provincial heritage resources authority. If, for whatever reason, the structures cannot be avoided by the proposed substation, then written application will need to be made to the Mpumalanga Provincial Heritage Resources Authority (MPHRA) to obtain their approval to demolish the remains.

If the graves and structures are to remain *in situ* (the preferred outcome from a heritage perspective), then both the graves and structures must be fenced to prevent any damage to them by construction staff and vehicles.

3. ADDITIONAL MITIGATION MEASURES

- Construction workers should be made aware of the types of heritage resources, such as graves, that could be impacted by construction activities. Workers must also be instructed that under no circumstances may heritage material be destroyed or removed from the project area.
- For any chance heritage finds (graves, etc.), all work must cease in the area affected and the Contractor must immediately inform the Project Manager. A heritage specialist must be called to site to inspect the finding/s. The provincial heritage resource authority, the MPHRA must be informed about the finding/s.
- The heritage specialist will assess the significance of the resource and provide guidance on the way forward.
- Permits must be obtained from the MPHRA if heritage resources are to be removed, destroyed or altered.
- Under no circumstances may any heritage material be destroyed or removed from the project site unless under direction of a heritage specialist.
- Should any recent remains be found on site that could potentially be human remains, the South African Police Service as well as the MPHRA must be contacted. No SAPS official may remove remains (recent or not) until the correct permit/s have been obtained.

- The following should be adhered to in terms of chance fossil finds:
    - When excavation takes place for the substation, any rocks disturbed during this process must be inspected by the environmental officer or designated person. Any fossiliferous material (trace fossils, plants, insects, bone, and coal) should be put aside in a suitably protected place.
    - Photographs of possible fossils should be sent to a palaeontologist for preliminary assessment.
    - If there are concerns regarding any fossil finds, then the palaeontologist must visit the site to inspect the selected material and check dumps where necessary.
    - Fossil plants or vertebrates that are deemed to be of good quality or scientific interest by the palaeontologist must be removed, catalogued and housed in a suitable institution where they can be made available for further study. Before the fossils are removed from the site a permit must be obtained from the MPHRA / SAHRA. Annual reports must be submitted to the MPHRA / SAHRA as required by the relevant permits.

4. ADDITIONAL MEASURES

The heritage specialist will upload the Phase 1 HIA report as well as this addendum to the SAHRIS database for the relevant heritage authorities to assess and comment on. It should be noted that the Phase 1 HIA report was uploaded onto the SAHRIS database in 2018 by the then Environmental Assessment Practitioner, but was not entered as Submitted as is required. It was merely entered as Noted hence it is the understanding of the specialist that there has been no comment from the heritage authorities in terms of this project.

In discussion with SAHRA, it was decided that the heritage specialist will upload the Phase 1 HIA report and addendum as a new case onto the SAHRIS database in order to obtain comment from the heritage authorities.

5. CONCLUSION

The use of Site C is restricted to some degree by the presence of protected graves and structures on the southern end of the substation footprint. If the footprint were to be moved 200 m northwards from its present location, then the graves and structures can remain *in situ*.

If the recommendations and mitigation measures provided in this addendum report are implemented and adhered to, then the use of Site C for the proposed Mulalo substation can be undertaken.