

Title / Designation: **Commissioning Engineer (Matimba Power Station) Pr.Eng Candidate**

To: Reinaldo Da Veiga

Copy to: Nolongisa Thabede, Rudzani Nchinyane, Dorenton Molikoe

Date: 2 September 2022

Subject: **Matimba, Medupi and Kusile Air Cooled Condenser Fans Anchor Points**

Purpose:

The purpose of this memo is to request the assistance of a subject matter expert in determining the best possible solution for the Matimba, Medupi and kusile Power Station Air-Cooled Condenser (ACC) fans plants.

Background:

At Matimba, a concern was raised by the ERI (Eskom Rotek Industries) maintenance team, through the safety officer, regarding the anchor points that are currently being used by the team. An assessment of the working area as well as the methodology and equipment used by the team at the ACC fans plant was carried out by ERI engineers, the Eskom ACC fans system engineer, the ERI and Eskom safety officers. The outcome of the assessment was as follows:

- The team is currently using the hold-down bolts that are used to anchor the hand-rails to the ACC fans structure. *Please see below for an illustration of the current anchor points.*



- The anchor points currently being used by the team are not safe as the handrail bolts were not designed to be used as an anchor point.
- The team initially agreed on sliding crawls as the best possible solution for the safety concern raised. Eight sliding crawls with a capacity of ½ ton were to be purchased.
- An order was placed with a supplier but unfortunately, the supplier did not deliver the crawls as per his committed date. The order has since been cancelled.
- Upon revision of the crawls solution with the Design Chief Engineer, it was decided that other solutions must also be considered which comply with national and international standard as a complete installation and is cost effective.

Requirements:

- Subject Matter Experts (SME) to visit Matimba, Medupi and Kusile Power Stations to carry out an assessment on the working area.
- The SMEs must recommend the best solution that will ensure that the anchor points meet the safety requirements and complies with a national or international act.
- The SMEs must advise on the following based on their on-site assessment:
 - The type of anchor points that must be used.
 - The installation method that must be used.
 - The cost estimate for the installation of the anchor points. There are 288 ACC fans at Matimba and 384 fans at Medupi and Kusile.
 - Safety compliance requirements to ensure that the anchor points meet the OHS act safety requirements as well as national and international acts.

At all three stations, a cost effective solution which complies with both national and international acts must be provided. A determination of how many anchor points will be required per fan will be made during the SMEs assessment. The solution must not require re-certification every time it is to be used by the teams at the respective sites. The assessment report generated by the SMEs will be presented to the Eskom system engineer for perusal and acceptance as this project will require the modification of the Eskom plant.

Kind Regards

L M Mpukwana



02/09/2022

R. Nchinyane



02/09/2022

D. Molikoe



02/09/2022