

 Eskom	The provision of supply and delivery of resins at Grootvlei power station as a once off purchase		

Unit	WTP	Plant area	Demineralisation
Responsible Department	Engineering ; Chemical Services		

Background: Grootvlei Power Station receives its raw water source from the Vaal dam. This water is treated through coagulation, flocculation, clarification and sand filtration before being fed to the ion exchange vessels. The purpose is to produce demineralised water as per Eskom Standard 240-53113712 suitable for used on steam boiler for power generation.

Objective: The procurement and delivery of strong base anion (SBA) and Strong Acid Cation (SAC) resin to be used at Grootvlei Power Station ion exchange vessels. The resin is required for top up of existing resin in the plant.

Scope

Required works

The Supplier is required to supply and deliver Strong Base Anion (SBA) and Strong Acid Cation (SAC) Resin to be used on the anion and cation vessels respectively.

Plant Full Specifications

Number of Trains: 3

Flowrate per train: 70m³/hr

The required works includes the following

1. Resin required for topping-up the vessels must be the same product and type as the resin currently installed in the plant. There shall be no need to do computer simulation for the top-up resin.
2. Provide batch numbers for all resin products delivered to Eskom, for traceability during troubleshooting.
3. All ion exchange resin products must be supplied in pallets of 25 liters bags amounting to 1000 liters.
4. All ion exchange resin products must be delivered in an open loaded truck to allow accessibility by the fork lift during offloading.
5. Both cation and anion resins supplied must have perfect beads exceeding 99% and broken beads must be less than 1%.
6. The uniformity coefficient for both cation and anion resin must be less 1.2 and 90% of the resin beads must be in the range of 0.60 – 0.70 mm.
7. The safety data sheets (SDS) and technical data sheet (TDS) must be provided per product. .
8. The following documents shall be submitted to Grootvlei Power Station personnel in the Water Treatment Plant Control Room upon arrival at the power station:
 - a. Ion exchange resin certificate of analysis and batch numbers.
 - b. Delivery note, which must include the order number, the name of the power station and the power station address.





9. Resin type required

All deviations from the attached scope of work must be approved by Engineering

- A. Strong Acid Cation resin – HPR 1200 H
B. Strong Base Anion Resin – Amberjet 4200 CL

10. Quantities required

- A. Strong Acid Cation resin - 18 000L
B Strong Base Anion Resin - 10 000L

	Compiled by	Reviewed by	Approved by	Accepted by
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