

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	1
C3.1	<i>Purchaser's Goods Information</i>	
C3.2	<i>Supplier's Goods Information</i>	
	Total number of pages	

	The Procurement and delivery of strong base anion (SBA) and Strong Acid cation (SAC) Resin to be used at Grootvlei Power Station
---	---

Unit	WTP	Plant area	Demineralisation
Responsible Department	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 litres bags amounting to 1000 litres.
4. All ion exchange resin products must be delivered in an open loaded truck to allow accessibility by the forklift 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

- 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

C3.2 SUPPLIER'S GOODS INFORMATION

1.1 Purchaser's requirements for the service

The Procurement and delivery of strong base anion (SBA) and Strong Acid cation (SAC) Resin to be used at Grootvlei Power Station

1.2 Management meetings

Once off Kick off meeting will be held once the contract is awarded to the successful supplier.

1.3 Invoicing and payment

Within one week of receiving a payment certificate from the *Supply Manager* in terms of core clause 51.1, the *Supplier* provides the *Purchaser* with a tax invoice in accordance with the Purchaser's procedures stated in the Goods Information, showing the amount due for payment equal to that stated in the payment certificate.

The Supplier shall address the tax invoice to
Grootvlei Power Station
and include on each invoice the following information:

Name and address of the *Supplier* and the *Service Manager*;
The contract number and title;
Supplier's VAT registration number;
The *Purchaser's* VAT registration number 4740101508;
Description of service provided for each item invoiced based on the Price List;
Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;
(add other as required)

Add procedures for invoice submission and payment (e. g. electronic payment instructions)

1.4 Health and safety risk management

The Contractor shall adhere to all OHS Legal requirements, OHS corporate policies, standards and procedures to which Eskom subscribes and as indicated on the issued SHE specification.

The Contractor shall, when coming on site (Grootvlei Power Station), abide by the Lifesaving Rules. These will be provided by the Employer on the start of the contract.

The Contractor shall also abide by the Grootvlei High risk Safety, Health and Environmental Specifications 240-73418055, which will also be provided by the Employer.

The Contractor shall, when coming on site (Grootvlei Power Station), make use of approved personal protective clothing such as overalls, safety shoes, safety hat, safety goggles, dust mask and gloves when necessary.

The Employer follows an Incident management procedure (32-95) that includes the investigation of all accidents involving personnel and property. This is done with the intention of introducing control measures to prevent a recurrence of the same incidents. The Contractor is expected to fully co-operate to achieve this objective. The Contractor will report any incident and accidents to Grootvlei Power Station within 24 hours or before end of shift . This report does not relieve the Consultant of his legal obligation to report certain

incidents to the Department of Labour, or to keep records in terms of the Occupational Health and Safety Act, and Compensation for Occupational Injuries and Diseases Act.

The Contractor implements a safety plan and maintains the safety system until the completion of the whole of the works. The plan, will as a minimum, contain PPE information, written safe work procedures, job specific risk assessments, safety meetings, etc. The plan will be to the Employer's satisfaction and will be accepted prior to the commencement of any work.

The Contractor will be subject to periodic audits by the Employer to ensure compliance with the plan. Any deviations will be corrected to the Employer's satisfaction.

The Service Manager has the right to stop the Contractor's work activities which, in the opinion of Service Manager, is un-safe. The Contractor may only continue with work activities when all safety deficiencies have been corrected to the Service Manager's satisfaction. The Contractor shall have no claim against the Employer in respect of delay due to the above.

The Contractor shall comply with the health and safety requirements contained in the contract tender package (j) The Contractor allocates staff to be trained and authorised as Responsible Persons according to Employer's Plant Safety Regulations and/or High Voltage Regulations. These Responsible Persons must be available on Site as and when required to take out permits to work.

1.5 Environmental constraints and management

(a) The Supplier will implement an Environmental Management System (EMS) and will maintain the EMS until the completion of the whole of the works. The EMS will be to the Purchaser 's satisfaction and will be accepted prior to the commencement of any work on site.

(b) The Supplier will be subject to periodic audits by the Purchaser in order to ensure compliance with the EMS ISO 14001:2015. Any deviations will be corrected to the Purchaser 's satisfaction.

(c) Furthermore, the Supplier will be familiar with and comply with Grootvlei Power Station's environmental management policies and procedures. Attention is drawn to Grootvlei Power Station's environmental non-conformance procedure, waste management procedure and spill clean-up procedure.

(d) The Supplier meets the following environmental requirements:

(1) Storm water

The Supplier ensures that clean and polluted storm water is and remains separated. All drains are cleaned on a scheduled basis to ensure the drains working at all times.

(2) Contaminated soil

All contaminated soil outside the contained stock yard is removed and dumped at an approved and demarcated area.

(3) Redundant Plant and Materials

Redundant Plant and Materials is removed from Site to the reclamation yard using the appropriate procedures. The Purchaser provides approval for all material to be removed from site to the reclamation yard.

(4) General Control of Site Activities

The site is controlled in an environmentally responsible manner. Note the following: Noise and pollution levels for all construction equipment are monitored and managed. Equipment with oil leaks, excessive emission, or unacceptable noise levels are repaired or removed from site. Temporary services are Maintained in a good and proper manner.

(5) Plant and material wash-down facilities, wash down of plant and material can only be done in areas

designated by the Purchaser.

(6) All drainage channels and pipes are kept clean at all times and special attention is given to clean the

drains after the rain.

(7) . Environmental General Requirements

- a) The Supplier shall have a documented and implemented environmental management system e.g. environmental policy, operational procedures relating to their activities.
- b) The Supplier shall comply with all Eskom Grootvlei Power Station environmental requirements such as policies, standards and procedures (work instructions).
- c) Ensure that all requirements contained in the ISO 14001:2015 Environmental Management System are adhered to.
- d) Project specific basic environmental management plan and waste management shall be outlined.
- e) Station Waste Management Procedure and color coding shall be always adhered to.
- f) Ensuring that environment is considered when executing activities.
- g) Polluter pays principles shall apply to all Suppliers. It is the responsibility of the polluter to clean all spillages and for the rehabilitation of the polluted land and the cost associated with that.
- h) Eskom Grootvlei Power Station shall issue non-conformances where there are deviations from Grootvlei Power Station Procedures and any other environmental requirements.
- i) Method statements related to activities that have significant environmental impacts (methodology and approach) illustrating how environmental impacts and risks will be managed shall be clearly defined.
- j) The Supplier shall allocate funds for the implementation of environmental requirements as and when required and ensure that personnel with basic environmental knowledge is appointed.
- k) The Supplier shall ensure that employees who deny to perform environmentally hazardous work in terms of section 29 of NEMA 107, of 1998 are protected.
- l) Adherence to the 'Duty of Care' as stipulated in section 28 of the National Environmental Management Act 107 of 2008.
- m) All incidents shall be managed according to Eskom Environmental incident management procedure-**240-133087117**, and all Environmental Incident shall be reported according to the requires stipulated in the procedure.

1.6 Quality assurance requirements

- (a) The Supplier implements and maintains the Quality Management System until the completion of the whole of the Service. The system, will as a minimum, comply with the provisions of the ISO 9001:2015 standard an (a) The Supplier implements and maintains the Quality Management System until the completion of the whole of the Service. The system, will as a minimum, comply with the provisions of the ISO 9001:2015 standard and Supplier Quality Management: Specification (240-105658000 also known as QM 58). The system will be to the Purchaser 's satisfaction and will be accepted prior to the commencement of any work on site.
- (b) The Supplier is responsible for defining the level of Quality Control Plan (QCP) or inspections to be imposed. The level should be based on criticality of plant and material and must be submitted to the Service Manager for acceptance prior to the commencement of any work activities.
- (c) The Supplier compiles a data package of relevant drawings, test certificates, design checks and other technical information for each section of work or Task Order which is to be reviewed and signed off by the Purchaser.
- (d) The Supplier will be subject to periodic audits by the Purchaser in order to ensure compliance with the system. Any deviations will be corrected to the Purchaser 's satisfaction.
- (e) The Service Manager has the right to stop the Supplier's work activities which, in the opinion of Service Manager, does not meet the requirements of the system and will have a detrimental effect on plant performance.

- (f) The Supplier may only continue with work activities when all deficiencies have been corrected to the applicable standard. The Supplier shall have no claim against the Purchaser in respect of delay due to the above.
- (g) The Supplier ensures that all plant and materials for the Works are to the standard and quality accepted by the Purchaser and ensures that they are suitable for the purpose intended by the manufacturer and Supplier Quality Management: Specification (240-105658000 also known as QM 58). The system will be to the Purchaser 's satisfaction and will be accepted prior to the commencement of any work on site.
- (h) The Supplier is responsible for defining the level of Quality Control Plan (QCP) or inspections to be imposed. The level should be based on criticality of plant and material and must be submitted to the Service Manager for acceptance prior to the commencement of any work activities.
- (i) The Supplier compiles a data package of relevant drawings, test certificates, design checks and other technical information for each section of work or Task Order which is to be reviewed and signed off by the Purchaser.
- (j) The Supplier will be subject to periodic audits by the Purchaser in order to ensure compliance with the system. Any deviations will be corrected to the Purchaser 's satisfaction.
- (k) The Service Manager has the right to stop the Supplier's work activities which, in the opinion of Service Manager, does not meet the requirements of the system and will have a detrimental effect on plant performance.
- (l) The Supplier may only continue with work activities when all deficiencies have been corrected to the applicable standard. The Supplier shall have no claim against the Purchaser in respect of delay due to the above.
- (m) The Supplier ensures that all plant and materials for the Works are to the standard and quality accepted by the Purchaser and ensures that they are suitable for the purpose intended by the .

1.7 Purchaser's site entry and security control, permits, and site regulations

Security Arrangement

- a) The Supplier applies for permits at the Security gate, prior to the starting date.
- b) All Suppliers personnel will be issued with a temporary access permit, which will contain the following information:
 - o Name
 - o ID Number
 - o Company
 - o Validity date
- c) In order to assist Protective Services with the using of permits and the identification of the personnel on site, the Supplier is to supply a list of all personnel that he intends using on site, at least 24-hours prior to entry of the Security Area. The list, identified with the Supplier's name, is to contain the following information:
 - o Employee's name.
 - o Employee's ID number
 - o Purchaser's Representative signature
 - o Copy of the first page of the ID book of every employee of the Supplier
- d) The Supplier personnel will be required to be in possession of their permit at all times. All Suppliers' permits must be submitted to Protective Service when the relevant personnel leave the site after completion of the works.

The Supplier /visitors and all personnel conform at all times, to the security arrangements in force at the time.
- e) No unauthorized vehicles are allowed on site. Only Supplier's vehicles with displayed contract vehicle permit disks will be allowed on site. Contract vehicle Permit Applications should be directed to the Purchaser's Representative.

- f) The Supplier is restricted to the working areas associated with his place of work. The Supplier is forbidden to enter any other areas, and must ensure that his employees abide by these regulations.
- g) Lost or damaged permits may be re-issued at a cost to be paid to the Purchaser by the Supplier
- h) The wearing of falling device's (Harness etc.) on Purchaser's site is compulsory,
- i) Road signs and the speed limit on site are adhered to. Vehicles may only be parked in designated areas.
- j) Personnel and vehicles entering and leaving the Site are subject to routing searches.
- k) The Supplier makes his own assessment of and allows in his rates for those access problems that may be encountered.
- l) Cameras including cell phones with camera facilities must be declared and handed in at the Security reception.
- m) No firearms, Ammunition or explosives are allowed on the Power Station premises.
- n) Reporting for duty under the influence of liquor or intoxicating substances is prohibited.
- o) No recruiting of casual Labour may be done on the Power Station premises, including the immediate area outside the Power station security gate.
- p) Control, lighting and watchman to the works where required.