

## EMPLOYER'S SERVICE INFORMATION

### 1 Description of the service

#### 1.1 Executive overview

The *Contractor* must undertake all mechanical maintenance on the:  
Common Plant - Vaal Dam pumping station and pipeline, Water Treatment Plant, Oil Skimmers, Reverse Osmosis Plant, Coal Handling System, Ash Handling System, Ash Water Return System, Effluent Plant, Fire System, Compressor Plant, Fuel Oil Plant, Liquid Petroleum Gas System, Pollution dams, Terminal Reservoirs and maintain the Common Plant Workshops. The *Contractor* shall also be responsible for the refurbishment and repairs on all the pumps on the Common Plant, which will include strip, assess, spares handling, quality checks, machining (limited to the machines in the workshop) manufacturing of parts where needed, assembly and all the other activity related to refurbishment and repairs that is deemed necessary by the *Service Manager*.

#### 1.2 Summary of the service

The *Contractor* is responsible for all aspects of maintenance and this includes, but is not limited to, the following:

- Staffing and management
- Work/task planning and co-ordination
- Completing work/tasks
- Recommendations regarding spares and stock holding
- Input into the Life Cycle planning process
- Attending daily meetings
- Budgeting
- First line investigations into plant failures and incidents
- Ensure compliance with legislation and national standards
- Ensure compliance with Eskom policies and procedures
- Maintain good housekeeping in the common plant areas.
- Ensure that the common plant systems meet safety, environmental and other statutory requirements in accordance with Eskom Grootvlei procedures and policies.

The *Contractor* maintains an all year round base crew, with applicable hand tools and consumables required for the *service* at Grootvlei Power Station. The base crew personnel are to be qualified and in possession of a valid trade test certificate. The *Contractor* manages the base crew and appoints a site manager. The *Contractor* must provide details of the personnel that will be used, along with qualification and training records.

The *Contractor* maintains the Common plant systems to ensure that the facilities are kept in a good working order and as per specifications. Maintenance is planned and shutdowns are scheduled and agreed on well in advance.

The *Contractor* maintains the Common Plant System which entail:

- Compiling a maintenance plan and obtaining approval from the *Service Manager*;
- Compiling and updating the maintenance manual;
- Keeping records of all maintenance done;
- To provide all the required tools to perform the work and to provide all required consumables;
- Maintaining the Common Plant System during scheduled maintenance periods;
- Maintaining the Common Plant System at shutdowns
- Execute the maintenance plan

The *Contractor* maintains the Common Plant System with all its facilities in a sound condition and ensures that it remains in the same condition as received and hands it back to the *Employer* in the same condition.

The *Contractor* is responsible for the assessment of the maintainability of the plant. The *Contractor* provides proposals for improvement of maintainability for the consideration of the *Service Manager*.



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The general maintenance philosophy is as per Grootvlei Maintenance strategy developed in 2006. If the need arises for

consultation with the Original Equipment Manufacturer (OEM), the *Contractor* shall get permission from the *Service Manager*, before engaging with the OEM.

All equipment must be maintained according to the philosophies and recommendations of the OEM and/or Eskom. The *Contractor* must ensure compliance to Eskom standards, policies and procedures at all times. This includes but is not limited to:

Running/routine maintenance.

- Preventative maintenance.
- Corrective maintenance.
- Emergency breakdown maintenance.
- Standby duties during normal hours as well as for call out purposes after hours.
- Commissioning activities as when required

Planned maintenance

- Interim and mini general overhaul

The *Contractor* shall perform any other mechanical maintenance requirements at no additional costs. This mechanical maintenance requirements include but is not limited to mechanical construction, mechanical installation, mechanical demolition, mechanical extension and mechanical modification as deemed necessary by the *Service Manager*.

### **1.3 Employer's requirements for the service**

The *Employer's objectives for this contract* includes, but is not limited to, the following:

- Maintaining the common plant at Grootvlei power station
- Encourage a long-term commercial relationship with the *Contractor* based on mutual trust, commitment to goals and an understanding of each party's expectation and values. Innovation and open communication shall be encouraged;
- Ensuring that the *Contractor* provides consistent availability of cost effective strategic maintenance services to the *Employer* as preferred customer;
- Ensure the application, implementation and development of appropriate maintenance policies and updating of maintenance techniques;
- Develop performance standard which support the *Employer's* reliability and optimised availability targets;
- The *Contractor* shall provide adequate resources capabilities to support the *Employer's* objectives. The *Contractor* shall develop contingency plan to mitigate this risk for skill availability.
- The *Employer* will provide Integrated Business Improvement (IBI) training and safety induction to the *Contractor*. This training is compulsory to the *Contractor* and *Contractor's* staff.
- The *Contractor* shall ensure that the sub-contractor's provide a detailed training program to the *Contractor* and *Employer*.
- Maintain good housekeeping in and around the plant
- The *Contractor* shall provide a day crew for normal working hours as well as a standby crew of at least one supervisor, three artisans and three assistants.
- All breakdowns on plant in service as well as standby plant, will be treated as emergencies and the *Contractor* will work on a 24/7 basis until the breakdown is fixed. The *Contractor* shall at all times be responsible for the supervision of its employees, agents, Subcontractors and mandatories.
- The *Contractor* shall take out Permit(s) To Work as per the Eskom Plant Safety Regulations to all external *Contractors* performing work within the plant areas of this contract.
- All work will be scheduled and executed according to the works management system.
- In the case of an unprotected strike, the *Contractor* shall provide labour (at no additional costs) for the *Service* of this contract to continue uninterrupted.

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## 1.4 The service

The information given is indicative only. However, it is the *Contractor's* responsibility to ensure that all mechanical systems and equipments are identified and maintained. The *Contractor* must conduct a site survey and confirm that the information is accurate. Any corrections must be brought to the attention of the *Employer* before the commencement date. The following plant areas are included in the *service*.

### **Mechanical Workshop:**

All equipment contained in the workshop:

Churchill Denham Lathe; Tos Lathe; Colchester Lathe; Dashin Lathe; Rema Pedestal Grinder; Rema Pedestal Grinder; Koppel Pedestal Grinder; Abarboga Pedestal Drill; Chevalier Surface Grinder; Great Captain Power Saw; Tosan Circular Saw; H.M.V. Slotter Saw; Ormerod Shape; Milling machine; Richmond Radial Arm Drill; H5 Radial Arm Drill; Tool and Cutter Grinder; Sander.

### **Water Treatment Plant (Potable Water and Demin Plant):**

The boundaries start at the terminal reservoirs and includes all the treatment processes up to the reticulation systems for both the demin water as well as potable water.

### **Ammonia Mixing and Dozing Plant**

All equipment contained and associated with the ammonia mixing and dozing.

### **Coal Plant:**

Boundary start at the coal trucks offloading points at the coal stockyard, the bypass stream and the tippler in loading bays includes, but is not limited to the weigh bridges, in-loading bay system, coal stockyard, buffalo feeder, coal staithes, coal distribution conveyor system, bunker tripper car chutes and up to the bunkers. (included)

### **Ash Handling:**

Boundary start at ash water return (AWR) pump suction line, including the isolation valves. All the AWR pumps, dosing equipment, valves pipelines, up to the dust hopper sliding gate valves and all the piping leading up to the ash boxes, including the sluice pumps, hydrovacs, sealing water pumps, hopper cooling pumps as well as all the valves and piping associated with them. The ash boxes and the dust hoppers are excluded from the scope, but from the outlet of the ash boxes and the outlet of the hydrovacs, everything is included, up to the ash line outlets on the ash dam. This will include but is not limited to all the sluiceways, lifting liners, sluiceway nozzles, ash sumps, submersible pumps, ash pumps, ash lines, ash line valves, Johnson couplings and all components deemed necessary by the *Service Manager*.

### **Compressor Plant:**

The complete compressed air system, including all the compressors, air receivers, air driers, valves and piping system will be included in the scope of work, although there will be another *Service Provider* appointed by the *Employer* who will be responsible for the service of the air compressors and the air driers. The *Contractor* takes responsibility of the maintenance of this plant.

### **Service Water:**

Responsibility starts at the flange after the suction valve of the service water pump to the unit tundishes including the ring mains. The responsibility also includes the interconnection to the Fire System and the Hydrants on the turbine side.

Responsibility extends to the tap offs going to the following plants: Hydrogen Plant, Compressor Plant, Seal Water Pumps and conductivity analysers up until the first inlet isolation valve of each system and includes the return ring main which collects all water from the respective tundishes and returns it to the main cooling tower pond via a single main.

### **Fire Water:**

Responsibility starts at the suction lines of the fire protection pumps and includes all pumps, piping, valves, bulbs and includes all air supply systems for the dry systems.

### **Effluent Plant:**

All mechanical equipment associated with the effluent plant, including, valves, pumps, piping, tank and other components deemed necessary by the *Service Manager*.

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