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## **1. Introduction**

Hire personnel to supply the services on a 24-hour basis for a period of 60 months (5years): Operation and Management of the Sewage Treatment Plant (STP) at Hendrina Power Station.

Sewage Treatment Plants consists of: North and South Plants including Oil and Grit plant. and Pump Station.

## **2. Supporting Clauses**

### **2.1 Scope**

The scope of work (SOW) covered in this contract is the Operation of the Sewage Treatment Plant (STP) at Hendrina Power Station. The contractor shall provide labour, Operational and Management Services, plant control, cleaning, as well as routine plant checks and reporting of defects.

#### **2.1.1 Purpose**

The purpose of this instruction is to outline the Scope for the Operation and management services of Sewage treatment plant on the expectation on both the contractor and employer (Eskom) for the duration of the contract.

### **2.2 Normative/Informative References**

Parties using this document shall apply the most recent edition of the documents listed in the following paragraphs.

#### **2.2.1 Normative**

- (1) DWS Regulation 2834
- (2) Eskom Procurement Procedure
- (3) 32-727 Safety, Health, Environment and Quality (SHEQ) Policy

#### **2.2.2 Informative**

- (1) NEC3 Terms Services contract

### **2.3 Definitions**

None

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## 2.4 Abbreviations

Abbreviation	Explanation
STP	Sewage Treatment Plant
SOW	Scope of work
NEC TSC	New Engineering Contract Terms Services contract
IRIS	Integrated Regulatory Information System

## 2.5 Roles and Responsibilities

Role	Responsibility
Employer	It is the responsibility of the employer to ensure that the contractor adhere to the requirements as stated in the SOW
Contractor	It is the responsibility of the contractor to ensure that the scope outlined in this instruction is adhered to throughout the contract period.

## 2.6 Process for Monitoring

There will be regular internal and external audits taking place at the Sewage plant, WWR and pump station, including peer review conducted by Eskom head office and Green drop audit conducted by Government.

Housekeeping and safety inspections will be done weekly by Managers including safety department.

## 2.7 Related/Supporting Documents

N/A

## 3. Scope of work for Sewage Treatment Plant Operation

### 3.1 Executive Overview

- The plant shall be operated in accordance with Hendrina Power Station Water Use License conditions and the operating procedure.
- The operators shall be classified in accordance with Regulation 2834.
- The number, duties, training, qualifications, and compulsory medical examination of the persons employed at the Sewage treatment plant shall be in accordance with the requirements of the plant's registration certificate issued in accordance with Regulation 2834.
- The contractor shall ensure that the plant is always clean
- The contractor shall conduct Sewage plant monitoring analysis e.g., chemistry parameters as per Green drop requirements.

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- The contractor shall ensure that full Sewage plant analysis are done as per regulation 2834 and Hendrina water use licence are analysed at the ISO 17025 accredited laboratory on fortnight basis and send the report to the Eskom contract supervisor.
- The contractor shall provide transport for all employees for home-work purposes, station meetings attendance and all other work-related activities.
- The contractor shall ensure that statutory safety appointments are done as per OHS act.

### **Staff**

1. The plant shall be manned 24 hours a day (on 12-hour shift cycles)
2. The number, training, qualifications of all staff members employed at the Sewage treatment, Wastewater Recovery plants shall be in accordance with Regulation 2834.
3. Class D type plant, in accordance with regulation 2834 is as follows:

### **Total number of Employees required:**

- 4x Site Supervisors – (Class III; Water related qualification (minimum NQF level 5 certificate); 2 years' experience in Sewage treatment plant, submit CV with references)
- 1x Supervisor – (Class V; Water related qualification; 6 years' experience in Sewage treatment plant, submit CV with references)
- 4x Process Controllers – (Class II; Water related qualification; 1 years' experience in Sewage treatment plant, submit CV with references).
- 4x Process Controllers – (Class I; Water related qualification; 1 years' experience in Sewage treatment plant)
- 8x Process Controllers – (Non classified; 1 years' experience in Sewage treatment plant.)
- 2x Cleaners (Offices and bathrooms)
- 1x SHEQ Representative (Safety Officer)

### **Total number of Employees per day/shift:**

- Supervisor Class V (Normal hours, Monday to Friday)
- Supervisors Class III (shift cycle of 12 hours, 1 per shift)
- Process Controller Class II (shift cycle of 12 hours, 1 per shift)
- Process Controller Class I (shift cycle of 12 hours, 1 per shift)
- Process Controller Non-Classified (shift cycle of 12 hours, 2 per shift)
- Cleaners (Non shift workers, Normal hours, Monday to Friday)

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4. Employees employed at the Sewage treatment works shall be registered as per Regulation 2834 and Eskom Supervisor must be provided with proof (copies).

5. Employees shall be dedicated to the Sewage treatment works.

6. All Controllers shall be trained in "Safe handling of Chlorine" and a copy of their certificate must be submitted to Eskom Supervisor. The certificate is only valid for one (1) year and must be renewed annually.

7. All employees must be issued with required personal protective equipment (PPE) and a signed copy with all the issued PPE must be handed to Eskom on an annually basis.

8. The staff working on the plant must be immunized and proof of immunisation must be provided to Eskom Supervisor.

9. The staff must undergo medical screening annually by registered medical practitioner (**FULL MEDICAL SCREENING IS REQUIRED**). Copies of proof for medicals to be kept on the safety file.

**NB: ONLY MEDICALS DONE BY CONTRACTOR ARE ACCEPTABLE NOT INDIVIDUALS**

10. The Class V Supervisor must be registered on the IRIS system and ensure that results are updated, and controllers are registered and classified.

11. The Contractor shall submit a daily plant status report to the Eskom Supervisor on the plant conditions.

12. Contractor shall operate and shall follow all works instructions and procedures provided.

13. The Contractor must take note that plant procedures and works instruction can be change based on the plant needs and that should not impact the contractual expenses and performance.

## **3.2 PLANTS**

### **A. Effluent**

- The final effluent must be treated with Chlorine based product, which is supplied by the Employer.
- The plant shall be operated to meet the effluent standard stipulated in the licence/permit conditions.
- Full set of samples to be sent to an Accredited Laboratory for analyses in accordance with compliance to General Standard.
- All waste products shall not be permitted to pollute/ contaminate surface or ground (compliance to DWS requirements Act of 1994)

### **B. Plant and Surroundings**

- The Contractor will operate the plant in accordance with Hendrina Power Station Water Use Licence conditions and operating procedures.
- The Contractor shall operate the plant in compliance to all Eskom Safety, Health, Environmental and Quality Policies (SHEQ).

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- All critical units at the Sewage plants shall be manned and supervised on 24-hour basis to ensure efficient operation by Contractor.

#### **C. Maintenance**

- Daily inspections shall be carried out on all plant units using check sheets as per plant routine.
- The plant shall at all times comply with the requirements of the Occupational Health and Safety Act No 85 of 1993 and Safety Legal System Standard procedure (HSSMSM004).
- The Contractor will report any deviations/defects with respect to plant and environment to the Employer's representative daily.
- Log all events /activities related to plant on each shift.
- The Contractor will ensure that all Eskom assets and property are maintained in a good condition.

#### **D. Audits**

- Audits covering various aspects of Environmental, Safety and Quality Operational and routine maintenance management of the plants shall be carried out to ensure compliance with statutory requirements and Eskom's policies, directives, and procedures.

#### **E. Access Control**

- Access to the plant shall be secured and controlled at all hours.
- A register /logbook for all persons visiting the plant shall be kept at the Sewage plant, adherence to the Limited Access Register control-LAR.

#### **F. Operations**

- The Contractor shall operate the plant units and equipment's according to instructions in the procedures provided.
- The Contractor will ensure that the number, training, and qualifications of all employees employed at the Sewage treatment plant shall be in accordance with Regulation 2834.
- The Sewage treatment plant shall be supervised and controlled by a suitably qualified and experienced Contractor who shall have under his control an adequate number of operators to always ensure proper functioning of the works and processes.
- The plant Controllers shall be in accordance with Regulation 2834 as per below for Sewage treatment works Class D type plant.
- The Contractor will monitor / manage the plant on a 24hour basis to ensure efficient operations.
- The Contractor will ensure full staffing as per regulation on continuous basis.
- The Contractor will complete daily plant check sheets as supplied by the employer.

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- The Contractor will ensure job observations are conducted on all critical tasks by the Supervisor.

#### **G. Training**

- Training shall remain the responsibility of the Contractor to develop its employees at no cost to the Employer.
- Training program / matrix to enhance employees as their development (provide training that forms part of the employees' duties)

#### **H. Availability of Staff**

- The plant Controller / Contractor's site Manager/Supervisor must be in possession of a cell phone during the full contract period.
- A list of names of contact persons and telephone numbers of the Contractor must be made available to the Employer's Supervisor before contract start date.
- The Contractor shall ensure that plant Controllers remain available at the Sewage plant for the duration of the shift.

#### **4. SHEQR requirements**

SHEQR requirements that cover the total holistic approach to all potential risks includes the following legal obligation:

##### **Safety**

- The Contractor will supply his safety file and plan for ensuring compliance to all safety requirements of OHSA and Regulations.
  - The Contractor shall ensure that all employees are issued with the required personal protective equipment (PPE) and a copy with all the issued PPE must be kept in the safety file annually.
  - The Contractor shall attend the compulsory monthly Partnership Managerial Safety meetings.
  - The Contractor shall ensure that Life Saving Rules are adhered to at all times.
  - The Contractor shall conduct plant safety inspections and have monthly safety meetings with its employees and records shall be kept in the safety file for as and when required by the employer.
  - The Contractor must ensure that the employees working on the plant undergoes a yearly medical screening and are immunised by registered medical practitioner and this responsibility lies with the Contractor. Copies of proof for both medicals to be kept on the safety file (**FULL MEDICAL SCREENING IS REQUIRED**).
- NB: ONLY MEDICALS DONE BY CONTRACTOR ARE ACCEPTABLE NOT INDIVIDUALS**
- The Contractor shall perform job observations (SMAT) weekly and submit to Risk department on monthly basis and do risk assessments and toolbox talks daily.
  - The SHEQ personnel must keep the companies contract safety file updated for Audit purposes.

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### **Environmental**

- The contractor will be required to adhere to all the environmental requirements as outlined in the Supplier Environmental Management Specification (HSSSPA/105).
- The contractor will be required to adhere to the requirements of the Hendrina Power Station Environmental Management System and have in place an environmental file to ensure adherence to all requirements, which must be approved by the Environmental Department before any work can commence on site.
- Waste management should be done in accordance with the documented procedure as highlighted in the Hendrina Power Station Waste Management Procedure HSPPIN003.

### **Quality**

- The Contractor will provide a quality assurance plan on how compliance with the statutory requirements will be monitored and ensured. This will include a quality control programme on chemical, physical and biological analysis, and reporting.
- Adherence to Quality requirements.
- Monthly full set of samples to be sent to an Accredited Laboratory for analyses in accordance with compliance to General Standard.
- The plant shall be maintained according to the quality requirements adhering to the Quality procedure.

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