

# DRAKENSBERG POWER STATION

## WORKS INFORMATION

### FOR

Purchasing of a new Pall HDP22 Vacuum Dehydrator Oil Purifier

**Date of Report:**

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**Compiled by:**



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**Accepted by:  
Mechanical Maintenance Manager**



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**Zama Mkhize**

# WORKS INFORMATION

## 1 DESCRIPTION OF THE WORKS

The Works make provision for:

Supply and deliver a new Pall HDP22 Vacuum Dehydrator Oil Purifier with the following technical specifications:

**Table 1**

PALL HDP22 VACUUM DEHYDRATOR OIL PURIFIER	
Flow Rate:	87 LPM @ 60 Hz / 73LPM @ 50 Hz
Dry Weight:	876 Kg
Dimensions (caster or floor mount):	206cm x 160cm x 111cm
Viscosity Range:	3cSt to 1000cSt
Seal Material:	Fluorocarbon
Enclosure:	Voltage Code W/1: NEMA 4. Remaining Voltage Codes: IP54
Inlet Fluid Temperature:	75° C Maximum
Ambient Temperature (special options available for higher ambient temperatures)	3,9 ° C to 40 ° C
Inlet Pressure Range:	-0.47 to 0.69 bar
Outlet Pressure Relief Setting:	5.5 barg maximum
Operating Vacuum Range	-0.51 to -0.80 bar
Heater Capacity:	15 kw (low watt density)
Paint Scheme:	Power coated (suitable for industrial ester service)
Fluid Filter Housing:	UR310 Series with 40" element

### 1.1 Background

Drakensberg Power Station has been battling with the ingress of contaminations in the hydraulic oil circulation; these contaminants cause the failure of the units and breakdown of systems such as hydraulic oil pumps etc. ingress of contaminants in the oil causes the high expenditure of hydraulic oil due to contamination where the oil can no longer be used in operation of the plant; therefore, it is timelessly being replaced with new oil.

### 1.2 Employers' objective

The *Employer's* objective is to purchase a new Pall HDP22 Vacuum Dehydrator Oil Purifier to minimize the expenses involved with purchasing of new hydraulic oil due to contamination. This will assist in the purification of hydraulic oil for a longer life span of the plant components and efficient circulation of the oil throughout all the systems. This will furthermore result in an increase in plant availability.

## 2 DRAWINGS

N/A

## 3 SPECIFICATIONS

Specifications are as detailed above on the description of the works.

## 4 CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS

### 4.1 Scope

The scope of work includes the following:

- Supply and deliver a new Pall HDP22 Vacuum Dehydrator Oil Purifier.

### 4.2 Design Criteria

The *Contractor* does not design any of the work.

### **4.3 Functional Requirements**

The *Contractor* must provide sufficient & specific oil purification unit as detailed in the work Info and deliver to site. The Engineer shall be entitled to request reserve plant should there be any doubt as to the efficiency or capability of the equipment provided.

### **4.4 Dispatch, Delivery & offloading.**

#### **4.4.1 Packaging**

The *Contractor* ensures that all material and equipment is adequately transported and delivered to site safely.

#### **4.4.2 Storage**

Store materials in a dry area, protected from freezing, staining and damage.

### **4.5 Clean working Conditions**

The *Contractor* stores equipment and materials for which he is responsible in an orderly manner.

### **4.6 Quality Management**

The quality requirements are as per Eskom standard **ESKASAAU7: QUALITY REQUIREMENTS FOR THE PROCUREMENT OF ASSET GOODS AND SERVICES.**

The *Contractor* utilizes the Employer's forms for requesting access, etc. These request forms are submitted to the supervisor at least one week prior to the requested date.

The onus to produce work that conforms in quality and accuracy of detail to the requirements of the specifications and drawings rests with the *Contractor*, and the *Contractor* shall institute a quality control system and provide suitably qualified staff to always ensure adequate supervision and positive control of the works.

The programming of inspections, hold and witness points of the repairs is to be agreed between the Employer and the *Contractor* prior to undertaking any work.

The *Contractor's* attention is drawn to the provisions of the various Standardized Specifications regarding the minimum frequency of testing required. The *Contractor* shall, at his own discretion, increase this frequency where necessary to ensure adequate control.

On completion and submission of every part of the work to the Employer for inspection, the contractor shall furnish to the Employer the results of the relevant tests, measurements, and levels to demonstrate the achievement of compliance with the specifications.

### **4.7 Safety Management**

The *Contractor* takes every precaution to ensure safety and to protect the *Works* and temporary works.

#### **4.8 Environmental Management**

The Contractor's attention is drawn to the fact that the Power Station is situated in a highly sensitive area with respect to the environment.

The *Contractor* acquaints himself with all statutory and local environment regulations and adheres to these without exception.

The *Contractor* complies with the Hazardous Chemical Regulations when using any hazardous chemicals, as well as complying with the requirements of the National Environmental Management Act of 1988.

#### **4.9 Installation**

To be installed by both the contractor & site where necessary.

#### **4.10 Other Construction Activities**

The *Contractor* notes that there may be other work taking place during the period when he is providing the Works and liaises with the other *Contractors* in this regard.

#### **4.11 Site Testing & Commissioning**

The *Contractor* tests the Works in accordance with the accepted testing procedure.

The *Employer* commissions the Works in accordance with the accepted commissioning procedure assisted by the Contractor.

#### **4.12 Title to site materials**

The *Contractor* has no title to plant and/or materials resulting from him carrying out the Works.

#### **4.13 Site Clearance**

The *Contractor* removes all his equipment, plant and waste generated during the *Works* on takeover of the Works.

#### **4.14 Documentation**

4.14.1 Signed test Certificates.

#### **4.15 Completion**

Completion is when:

- The Pall HDP22 Vacuum Dehydrator Oil Purifier has been supplied.

#### **4.16 Accounts and Records**

The *Employer's* Representative assesses payments with the *Contractor* on completion of the *Works* and prior to submission of the invoices for payment.

Invoices are submitted to:

**Accounts Payable**

**Eskom Peaking Generation**

**P O Box 3487**

**Tygervalley**

**7536**

Failure to submit the invoice to the correct address could result in delays in payment.

The *Contractor* includes the following on the *Contractor's* Tax Invoice:

- Name and address of *Contractor's*
- *Contractor's* VAT registration number if applicable
- *Contractor's* company registration number if applicable
- Name and address of recipient
- Tax invoice number and date of issue,
- Description of goods/service provided,
- Quantity or volume of goods/services
- Period time for which the Tax Invoice is being rendered,
- Contract Number
- Statement whether value added tax is included or excluded.
- *Employer's* VAT registration no. 4740 101 508

## 5 REQUIREMENTS FOR THE PROGRAM

The *Contractor* submits a bar chart program detailing how the Works will be executed within the stipulated dates.

The *Contractor* submits the program with his tender and finalized a contract award.

The program indicates the start date, completion date and duration of each activity.

The program is updated and submitted daily to the *Employer* for acceptance.

## 6 SERVICES AND OTHER THINGS PROVIDED BY THE *EMPLOYER*

### 6.1 Electrical Supply

- N/A

### 6.2 Potable Water Supply

- N/A

### 6.3 Spoil Area

- N/A

**All other services and things needed to provide the works, is supplied by the *Contractor*.**

## 7 SITE INFORMATION

### 7.1 Directions to site

The Drakensberg Pumped Storage Scheme is reached from Harrismith via the R49 to Kestel. Take the R74 turn off to Bergville some 2.8 km along the R49. Turn left after 8.7 km and travel 23.5 km to the Kwazulu-Natal/Free State boundary at the top of the Oliviershoek pass. From there, travel 13.1km down the pass and turn left. Follow the signposted directions to the power station for approximately 9.5 km. The total distance from Harrismith is approximately 60 km. The power station can also be reached travelling from Ladysmith and Durban.