

Annexure C3.2:

1. Scope of work

The slaker is a horizontal rotating Kiln used to produce Milk of Lime. Milk of Lime is produced through the Exothermic process by mixing water and lime granules. The Milk of Lime produced is stored in M.O.L tanks at a temperature of +/- 70 degrees. The produced Milk of Lime is used for varying the pH of Raw Water in Rand Water's purification process.

TECHNICAL REQUIREMENTS: ZUIKERBOSCH STATION

Major Overhaul on No.17 Slaker at No 4 Slaker House at Zuikerbosch Water Treatment Plant

Scope of Work: Major Overhaul of No 17 Slaker at No.4 Slaker House.

Obtain a necessary permit.

*****STRIPPING*****

- Remove the Slaker drum from the plant
- Remove base plate and guide rollers
- Remove drive gear guard
- Remove feeder chute
- Remove discharge chute
- Remove surrounding handrails
- Remove gearbox, guard, motor and base plate
- Remove Lubricating system

NB: Supplier to provide all necessary rigging equipment including mobile crane required for the removal of the Assets.

*****Cleaning*****

- Sand blast and clean Slaker drum
- Sand blast and clean base plate and guide rollers
- Sand blast feeder chute
- Sand blast discharge chute
- Sand blast gearbox and motor base plate

NB: All cleaned items to be base painted/coated with Red Oxide and final painted with galvanising Sand Blasting to conform to ISO 8501 - SA2.5, Cert required

*****Repair and Replace*****

- Overhaul Gearbox (Bearings and seals to be replaced)
- NB: gearbox has an excessive backlash requiring attention
- Refurbish Motor (Bearings to be replaced)
 - Replace taper lock coupling
 - Replace surrounding handrails (handrails to be painted yellow as per the OSH act)
 - Refurbish lubricating system (all hydraulic blocks, pipes, fittings, nozzles, pressure gauges and micro switch to be replaced)

- Manufacture and replace all Supporting Rollers as per Rand Water drawing DRG 8640, replace all bearings and grease nipples (Rollers to be case Hardened)
- Machine flat Slaker ride rings and remove all mushrooming on the ride rings.
- Replace all liners with 16mm Bennox liner plate as per DRG 7934.

*****Installation, Alignment and Commissioning*****

- Supplier to transport all removed items and install all Slaker Components as per the existing installation
- The Slaker and Base Plate to be aligned after components have been installed
- Supplier to commission and performance test the Slaker.

Major Overhaul on No.11 Slaker at No 3 Slaker House at Zuikerbosch Water Treatment Plant

Scope of Work: Major Overhaul of No 11 Slaker at No.3 Slaker House.

Obtain a necessary permit.

*****STRIPPING*****

- Remove the Slaker drum from the plant
- Remove base plate and guide rollers
- Remove drive gear guard
- Remove feeder chute
- Remove discharge chute
- Remove surrounding handrails
- Remove gearbox, guard, motor and base plate
- Remove Lubricating system

NB: Supplier to provide all necessary rigging equipment including mobile crane required for the removal of the Assets.

*****Cleaning*****

- Sand blast and clean Slaker drum
- Sand blast and clean base plate and guide rollers
- Sand blast feeder chute
- Sand blast discharge chute
- Sand blast gearbox and motor base plate

NB: All cleaned items to be base painted/coated with Red Oxide and final painted with galvanising Sand Blasting to conform to ISO 8501 - SA2.5, Cert required

*****Repair and Replace*****

- Overhaul Gearbox (Bearings and seals to be replaced)
NB: gearbox has an excessive backlash requiring attention
- Refurbish Motor (Bearings to be replaced)
- Replace taper lock coupling
- Replace surrounding handrails (handrails to be painted yellow as per the OSH act)
- Refurbish lubricating system (all hydraulic blocks, pipes, fittings, nozzles, pressure gauges and micro switch to be replaced)
- Manufacture and replace all Supporting Rollers as per Rand Water drawing DRG 8640, replace all bearings and grease nipples (Rollers to be case Hardened)

- Machine flat Slaker ride rings and remove all mushrooming on the ride rings.
- Replace all liners with 16mm Bennox liner plate as per DRG 7934.

*****Installation, Alignment and Commissioning*****

- Supplier to transport all removed items and install all Slaker Components as per the existing installation
- The Slaker and Base Plate to be aligned after components have been installed
- Supplier to commission and performance test the Slaker.

Major Overhaul on No.4 Slaker at No 2 Slaker House at Zuikerbosch Water Treatment Plant

Scope of Work: Major Overhaul of No 4 Slaker at No.2 Slaker House.

Obtain a necessary permit.

*****STRIPPING*****

- Remove the Slaker drum from the plant
- Remove base plate and guide rollers
- Remove drive gear guard
- Remove feeder chute
- Remove discharge chute
- Remove surrounding handrails
- Remove gearbox, guard, motor and base plate
- Remove Lubricating system

NB: Supplier to provide all necessary rigging equipment including mobile crane required for the removal of the Assets.

*****Cleaning*****

- Sand blast and clean Slaker drum
- Sand blast and clean base plate and guide rollers
- Sand blast feeder chute
- Sand blast discharge chute
- Sand blast gearbox and motor base plate

NB: All cleaned items to be base painted/coated with Red Oxide and final painted with galvanising
Sand Blasting to conform to ISO 8501 - SA2.5, Cert required

*****Repair and Replace*****

- Overhaul Gearbox (Bearings and seals to be replaced)
NB: gearbox has an excessive backlash requiring attention
- Refurbish Motor (Bearings to be replaced)
- Replace taper lock coupling
- Replace surrounding handrails (handrails to be painted yellow as per the OSH act)
- Refurbish lubricating system (all hydraulic blocks, pipes, fittings, nozzles, pressure gauges and micro switch to be replaced)

- manufacture and replace all Supporting Rollers as per Rand Water drawing DRG 8640, replace all bearings and grease nipples (Rollers to be case Hardened)
- Machine flat Slaker ride rings and remove all mushrooming on the ride rings.
- Replace all liners with 16mm Bennox liner plate as per DRG 7934.

*****Installation, Alignment and Commissioning*****

- Supplier to transport all removed items and install all Slaker Components as per the existing installation
- The Slaker and Base Plate to be aligned after components have been installed
- Supplier to commission and performance test the Slaker.

*****GENERAL REQUIREMENTS OF IMPORTANCE*****

- Obtain site permission from Mechanical foreperson on a daily basis upon.
 - Access permit to be requested by Contractor every morning and sign off before knockoff time.
 - Time to complete in days, starting from date order number is given to the contractor, must be stated on the quote.
 - All work to match existing installations and standard of quality.
 - No substandard work or substandard materials or poor work progress would be accepted and could cause the immediate termination of an order.
 - Quotation shall not be considered if it does not fully comply with all the requirements and specifications of the scope of work.
 - Rand Water will not be held responsible for any losses incurred by the tenderer or contractor.
 - Quality Control Plan (QCP) with holding points for inspection by Rand Water site representative to be submitted for approval before commencement of work.
 - Decommission, transport to contractors works, refurbish, deliver and commission Slakers and associated components at Zuikerbosch Pumping Station.
 - All components to be offered 12 (TWELVE MONTHS) guarantee on faulty design, materials and workmanship, commencing once the commission.
 - No extra work or deviations from the scope is allowed without permission in writing from Rand Water.
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- NB: Supplier to compile and submit safety file for Zuikerbosch Station.
 - NB: Rand Water Recommends Attendances to SITE BRIEFING, before Quoting so as to allow the Service Provider an opportunity to acclimatise themselves with the type of work they would be required to execute and also for additional info.
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- Final release Inspection by Rand Water site representative is required before all the components are transported back to Site.
 - All slaker components shall be painted with Red oxide primer.
 - Inspect Slaker Base, secure base if required.
 - Clean up the area where the slaker was removed, Rand Water Site representative must be notified as soon as the cleaning is done to give a go ahead.
 - Prepare Drive base and Rollers pedestal base for installation.
 - Clean outlet manifold and assemble.
 - Transport and install all components to site.
 - All hold down bolts shall be Grade 8.8. or higher
 - Cold commission to be done by Contractor and Rand Water site representative.
 - Post snag list from cold commissioning, Hot commissioning shall be performed by both parties and Rand Water Operations department.

- NB: Upon completion of work Supplier is required to submit two detailed data books for the Slaker refurbishment. Critically all material data sheets and certificates are to be issued. (The invoice will not be accepted if submitted without the data book)

NB:

- Site meeting required for the supplier to understand the area they will be working in and for additional info
- A detailed QCP must be submitted for approval before commencement of work
- A safety file will be required and subsequently site induction will be carried out.
- Contact Personnel:

Annexure C4: Site Information

Vischagat Road, Three Rivers East

Vereeniging, 1939

GPS Coordinates: S 26° 41.520 and E 28° 00.061

Potential Bidders who wish to attend the site visit must ensure that they abide with the below requirements.

S26 41 520 E28 00 061

The workplace is surrounded by system with water flow.

Upon issuing of purchase order a safety file with risk assessment will be required

Working time is from 7h00 to 16h00

THE IMPORTANCE OF WEARING PPE

Everyone accessing the plant will be expected to wear safety shoes, failure to which no access will be granted.

THE IMPORTANCE OF CARRYING YOUR DRIVER'S LICENSE

Everyone accessing the site using personal or company vehicles is requested to always carry their valid driver's license.

VALID CAR DISCS ARE ESSENTIAL

Every company or personal vehicle accessing the site must have a valid car disc. The biometric system will scan and cross-reference these discs to ensure compliance with local regulations. Failure to have a valid car disc may result in the vehicle being refused entry.

DATA SECURITY

The site complies with the principle of Personal Access to Information Act (PAIA) and as such all data collected will be treated with the utmost confidentiality and used solely for security and access control purposes.