

Annexure C3.2 and C4

1. Scope of work

The scope of work to service chlorine manifold pipes at Zuikerbosch Water Treatment Plant 3 station.

Rand water utilizes Chlorine for the disinfection of the bulk water produced. Chlorine pipes are crucial to deliver liquid chlorine into the evaporator for vaporization process for dosing purposes.

Detailed scope of work:

3 station chlorine plant the manifold is divided into two West and East Bank.

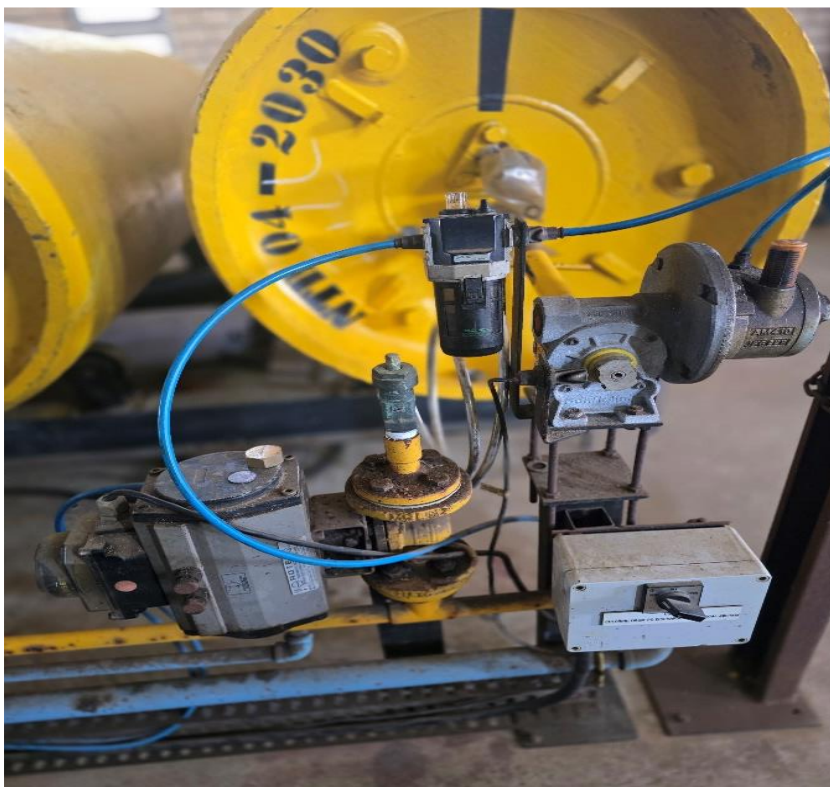
One bank will be available at the time until the task is completed and commissioned.

1. Measure the existing manifold to ensure the correct length of the manifold is maintain and number of valves
2. Strip the existing manifold made up of Tee, Valves, Elbows, unions and Flanges
3. Construct new pipe manifold:
 - Install new x 32 plug valves
 - Refurbish and Install x 20 Bonfiglioli manifold gearbox
 - Refurbish and Install x 20 actuator (actuator must be assembled to the new plug valves)
 - Refurbish and Install x 20 Bonfiglioli air motor
 - Install new chlorine flexible Serpentine connector x 20 by 2metre coil
 - Install new chlorine auxiliary block valve (serpentine valve) x 30
 - Install new x 135 flanges with chlorine resistance gasket to fit 1" pipe
 - Install new x 25 elbows at 1"(ASTM A105)
 - Install new x 55 Tee's at 1" (ASTM A105)
 - Install new unions at 1"
 - Use new seamless pipes total +/-70m (ASTM A-106, GRADE B)
 - Refurbish and install 2 x bank change over actuator (actuator must be assembled on the new plug valve)
 - Clean and pressure test accumulators x 3
 - Install new rupture discs x 3
 - Use stainless steel to all bolts and nuts
 - Replace all heat cables and foils
 - Compile and submit safety file
4. Construct new pipes inside evaporator room for 2 x evaporators
 - Remove old 1' pipelines and valves
 - New Pipes to be rerouted
 - Each evaporator to have inlet and out pipes & valves
 - Install new seamless pipes total +/- 60m (ASTM A-106, GRADE B) 1"
 - Install new x 46 flanges with chlorine resistance gasket to fit 1" pipe
 - Install new x 7 plug valve at 1" ASTM A105
 - Install new x 5 pipe union at 1"
 - Refurbish and Install x 4 actuators
 - Install new Tee, Elbows and Unions for 1"
 - Clean and pressure test accumulators x 2
 - Install new rupture discs x 2
 - Install new heater cables
 - Install new 2 x chlorine regulators

West and East Banks manifold



Gearbox, Plug valve, air motor, actuator and serpentine valve/pipes



Accumulators, rupture disc and plug valve.



Evaporator room: Evaporators pipelines, accumulators and Regulators



The supplier to Note the following:

1. Safety file is required and Induction to be conducted.
2. QCP to be submitted before task commence
3. Rand Water to switched off the bank and purge pipeline for supplier to work
4. All welding must conform to ISO 15614
5. All the welded areas must be 100% X-ray tested
6. All Employees must be trained and certified to work in a chlorine plant
7. All Employees must have the required PPE to work in a chlorine plant (Chlorine mask)
8. Crucial to ensure no leaks during commissioning
9. Pressure testing requires portable hand pump and a calibrated gauge. The test pressure is 21 bar
10. A data book with material data sheets and certificates required on completion of the project
11. The data book should be submitted same day as the invoice
12. All old pipes, valves and fittings removed from the plant must be returned to Rand Water.

Annexure C4: Site Information

Non Compulsory Site Briefing 19.09.2025 @ 11:00

RAND WATER ZUIKERBOSCH – we meet at Risk Control Parking Area

Vischagat Road, Three Rivers East

Vereeniging, 1939

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

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.