

STATEMENT OF WORK

Repair and General overhaul of the two 180KW air cooled water chillers supplying the CDC main admin building at the UVRI Campus in Entebbe (January, 2016)

CDC UGANDA REPAIR AND GENERAL OVERHAUL OF THE AIR COOLED WATER CHILLERS

C.1 Background and Need

CDC Uganda main office is located in Entebbe at the Uganda Viral Research Institute (UVRI) campus. The main Laboratory / Admin building uses two air cooled water Carrier-make Chillers to supply conditioned air to the offices and Laboratory space via ceiling-based Air Handling Units .

Within the last month , the Chiller Units developed functionality problems which according to the inbuilt self-diagnostics feature , are caused by suspected faults with the Water pumps . Failure of the latter to sustain normal runs after power-up , prohibits the Compressors from running and providing the much needed cooling within the Offices , Conference rooms and Laboratory spaces within the Facility . This state of affairs has prevailed for about 2 weeks now amidst intensive efforts by the in-house technical team to troubleshoot and fix the problem.

Considering the need for Air-conditioning the Facility that is the seat of CDC-Uganda top Management and where many important meetings , both internal and those involving external participants , there is urgent need at his point , to outsource specialized skillset , experience and diagnostic tools and test-sets that would assure capacity to effectively diagnose and decisively fix the Chiller problem .

Due to the number of years the units have run there is need for a general overhaul and elaborate Technical - Service of both units in order to increase on their efficiency and operational life span. This will help restore the much needed conditioned air in the different work areas within the Facility .

C.2 Project Objective

The main aim of this Activity is to identify the cause of non-functionality of the chilled water system units, rectify the problem and ensure that the units are fully functional and carry out a general overhaul of the System hardware as deemed necessary ,and restore initial efficient functionality of the Equipment system .In addition this Activity shall identify and advise on which functional parts / components should be replaced , if need be , regularly .

C.3 Scope of Work –

The project will require that the Vendor, with proven Refrigeration and Air conditioning (HVAC) Skills ,

adequate relevant experience in Chilled water systems , and recommended professional troubleshooting tools and test-equipment ,carries out the tasks outlined below with a view to ensuring full and efficient functionality of the two Chiller Units .

C.4 Technical Requirement

- 1) Conduct a Site-Visit and technical assessment to familiarize with the grounds and establish how best to do the work;
- 2) Trouble shoot and ascertain cause of non-functionality of the units (identify problem)
- 3) Proceed with rectifying the problem
- 4) After ensuring that unit is fully operational do a general overhaul of the units and this shall include:-
- 5) Check the chilled water line for smooth flow of the water (check the strainers, all gate valves, flanges, water flow gauges, expansion tank, safety valves and all accessories on the chilled water line) and advise which parts are due for replacement.
- 6) Check the chilled water pumps and carry out the required maintenance on the pumps
- 7) Check the refrigeration system (state status of refrigerant in system, check for standby, suction and discharge pressures)
- 8) Check all the sensors and state their current operating status and advise for replacement
- 9) Check all the pressure transducers and advise on replacement , if necessary ;
- 10) Check on the condensing fan and carry out the required maintenance
- 11) Check all electrical components in the circuit and advise which are due for replacement
- 12) Check all 4 operating PCBS on the units and advise on their operating status.
- 13) Replace all the damaged insulation and metal sheet casing on the chilled water line.
- 14) Carry out comprehensive reprogramming test-run and ensure full functionality of both Units

C.5 Reporting schedule

The Contractor shall report directly to the CDC Activity Manager for this activity for purposes of pre-proposal inspection, SOW-clarification, Work execution, pre hand-over Inspections and any related technical activities.

C.6 Special Considerations - (Information that does not fit neatly or logically into one of the other sections. For example, it may be used to explain any special relationships between the contractor and other contractors working for the government.)

1. The Contract activities shall be carried out within minimum if any, disruption of the activities of Facilities like offices and or work areas.
2. Evaluation criteria will be based on:
 - adherence to the SOW
 - technical drawings illustrating Installation design specifications
 - Proof of previous handling of similar works

C.7 Government Furnished Property

No government property will be provided for this requirement – the contractor shall provide all material and equipment to deliver a turn-key solution.

C.8 References

Provide a company profile/proof that highlights similar previous works completed successfully .

Deliverables

Once a Contractor is selected and an agreed upon projected timeline is confirmed, the Contractor shall deliver a properly serviced / overhauled , reprogrammed and a technically fully functional Chiller Equipment System with all the recommended replacement parts , reprogramming guidelines and regular service hints . All this should be completed within the specified timeline.