

2.4	Check fan motor for abnormal temperature and bearing condition and rectify if necessary.	X	X	X
2.5	Check fan and motor mountings and bracketing for condition and rigidity.		X	X
2.6	Check fan motor electrical connections and wiring for loose and hot connections, damaged insulation and short circuiting and correct if required.	X	X	X
3	COOLING/HEATING COIL			
3.1	Clean out coil casing, fins and tubes.			X
3.2	Check for refrigerant leaks.		X	X
3.3	Check, record air temperatures and airflow obstruction and rectify if necessary.		X	X
3.4	Check coil, coil frame work etc. For deterioration, rust spots, de-rust, treat, paint and rectify if required			X
3.5	Check condition of coil fins and comb if required.			X
4	AIR FILTERS			
4.1	Wash and clean filters.	X	X	X
4.2	Check condition of filters and report.	X	X	X
4.3	Check filter frames for air by-pass and rectify if required	X	X	X

AIR DISTRIBUTION SYSTEM

ITEM	DESCRIPTION	MONTHLY	BI-ANNUALLY	ANNUALLY
1	Check all ducting for abnormal air leaks and seal if required.		X	

2	Check all flexible duct and canvas connections for deterioration and rectify where required.		X	
3	Check grill, louvers and dampers for deterioration and correct if required		X	
4	Check Vermin-screens for cleanliness and deterioration and attend if necessary.		X	
5	Clean grills and diffusers.		X	

WATER DISTRIBUTION SYSTEM

ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1	Check piping and pipe components for water leaks and rectify if necessary.	X		X
2	Check control valve operation.	X	X	X
3	Check thermometers and pressure gauges and replace the faulty ones.	X	X	X
4	Check pressures and temperatures to ensure correct operation.	X	X	X
5	Check operation of valves and valve actuators.	X	X	X
6	INSPECT CONDITION OF:			
6.1	Piping, flanges, joints and fittings	X	X	X
6.2	Connections	X	X	X
6.3	Welds	X	X	X
6.4	Valves and valve actuators.	X	X	X
6.5	Air vents and separators.	X	X	X
6.6	Hangers and supports.	X	X	X



FIRE DAMPERS

ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1				
1.1	Full unobstructed access to dampers is provided.			X
1.2	Check the fire damper orientation against the air flow			X
1.3	Check the fusible link for any physical damages, and remove see if the damper closes completely The fusible link must be reinstalled after testing is complete. If the link is damaged or painted, it must be replaced with a link of the same size, temperature and load rating.			X
1.4	Check for any rusted, bent, or misaligned parts, damaged blades, or defective hinges			X
1.5	Check the damper frame for any physical damage that may obstruct the operation of the damper.			X
1.6	All exposed moving parts to be dry lubricated			X
1.7	Check the integrity of surrounding fire-resistant structure if it is still satisfactory			X
1.8	Check if the damper fully opens, blades free to close and latch?			X
1.9	Check the smoke extraction normally closed fire damper actuator if it closes when isolated.			X



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LARGE AXIAL FANS

ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1	Check fan drive, shaft, bearings, couplings, pulley, impeller/blades, all moving parts, etc. for alignment, lubrication and wear and tear and adjust or rectify if required.	X	X	X
2	Check fan impeller/blades, casing, mounting, etc. for deterioration and dirt deposits, clean, rust proof, treat and repair if necessary.	X	X	X
3	Check fan and motor for abnormal noise and vibration and rectify if necessary.	X	X	X
4	Check fan and motor for abnormal temperature and bearing condition and rectify if necessary.		X	X
5	Check fan and motor mountings and bracketing for condition and rigidity.		X	X
6	Check motor electrical connections and wiring for loose and hot connections, damaged insulation and short-circuiting and repair if required.		X	X
7	Check circuit breakers, starter, overloads and all other electrical and control components for condition and operation.		X	X
8	Check for short-circuit of air or airflow obstruction and attend if necessary.	X	X	X



SMALL FANS AND EXPELAIR FANS REF

	AIR DISTRIBUTION SYSTEM			
1	Check conditions of fan box and operation of louvers.		X	X
2	Check solenoid and linkages and repair if necessary.		X	X
3	Check fan motor, electrical connections, switchgear and wiring for condition, operation and for safety.		X	X
4	Check for abnormal noise and vibration and attend to problem.		X	X

AIR COOLED - UNITARY AIRCON UNITS

ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1	Remove air filters, clean and ensure that filter frame and media is fitted properly with no by-pass or obstruction.	X	X	X
2	Check and correct condensate drain if necessary.	X	X	X
3	Check condition and operation of thermostat and control.	X	X	X
4	Check electrical wiring and component condition and record operating parameters			X
5	Check if unit is operated from independent power supply or circuit breaker.			X
6	Check for correct condenser air path and ensure that unit is free from any re-circulation.	X	X	X



7	Check condenser fan for operation vibration and noise and correct if necessary.	X	X	X
8	Check evaporator fan for operation, vibration and noise and correct if required.	X	X	X
9	Check compressor for operations, vibration and noise and correct if required.	X	X	X
10	Check cooling cycle and record operating parameters.	X	X	X
11	Check heating cycle.	X	X	X
12	Check for gas leaks.		X	X
13	Check for pipe insulation damage, repair and vapour seal if required.		X	X
14	Check safeties.		X	X
15	Check unit and unit casing, clean and position and bracketing	X	X	X
16	Check thermostat sensing bulb for position and bracketing.			X
17	Chemically pressure clean condenser coil and evaporator coil.			X
18	Clean unit sump		X	X
19	Treat unit for rust.			X
20	Clean unit casing and components.		X	X
21	Check air grills and diffusers for condition, correct position and adjustment.		X	X
22	Compare manufactures specification with efficient operating of the air-conditioning unit.			X

HEAT-PUMP



ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1	Check compressor oil level and top up if necessary.	X	X	X
2	Inspect and leak detect entire refrigeration circuits for leaks.	X	X	X
3	Check operation of expansion valves.	X	X	X
4	Check compressor suction and discharge gas pressures and record.		X	X
5	Check changeover compressor operating sequence.	X	X	X
6	Check and record compressor operating full load amperages.	X	X	X
7	Check and inspect operation of compressor crankcase heater.	X	X	X
8	Examine for unusual knocks, noises and vibrations.	X	X	X
9	Check sight glass for moisture and refrigerant levels.	X	X	X
10	Generally clean equipment and plant room areas.	X	X	X
11	Check electrical power supply, safeties and current protection.	X	X	X
12	Drive motor bearings to be lubricated where applicable.		X	X
13	Water analysis and corrosion control tests to be done and a report to be submitted.		X	X
14	Drive motor brushes and slip rings to be checked if applicable.		X	X
15	Flexible drive coupling alignment to be checked if applicable.		X	X
16	Unloading mechanism to be checked for correct operation.			X



17	All safety devices to be checked and operation of controls to be tested.		X	X
18	High- and low-pressure cut-out and oil pressure switch operation and set points to be checked, record and reset if necessary.		X	X
19	Check compressor mountings.		X	X
20	Check insulation and vapor seal for deterioration on evaporator and refrigerant piping and repair if necessary.		X	X
21	Check compressor oil, submit oil sample to laboratory for analysis and submit report plus recommendation to client representative.			X
22	Liquid dryers and strainers to be cleaned or changed as necessary.			X
23	Oil viscosity and cleanliness to be tested and recorded and changed when necessary.			X
24	Tube type condensers to be brushed, chemically cleaned and de-scaled.			X
25	Check all metal work for rust spots, clean these sections, de-rust, treat and paint if required.			X

GENERAL ITEMS

ITEM	DESCRIPTION	MONTHLY	QUARTERLY	ANNUALLY
1	Remove all waste materials	X		
2	All machinery etc., to be kept in clean condition	X		
3	Maintain floors in clean state	X		
4	Keep drains etc., free from waste material	X		



5	Report of general operation of plant room	X		
6	Inspect all fresh air intakes, and exhaust discharges for blockages	X		
7	Check and repair any loose or damaged insulation on pipe work	X		
8	Ensure that all overflows and drains are free from blockages	X		
9	Clean out all debris from plant-room. Do not allow water to accumulate on plant room floors	X		
10	Carry out visual and audible inspection of all equipment and investigate and rectify any unusual noises or excessive vibrations	X		

COST PROPOSAL

The charge for the service shall be a monthly fee of **E..... Inclusive of VAT** for the duration of the contract, with an annual escalation of ___%.

The above-mentioned fee shall include a team permanently based at Eswatini Revenue Authority Headquarters. The team shall be comprised of one qualified HVAC technician and one Technical assistants. Additional support should be available in the event of breakdowns when required.

The method statement provided above outlays in detail the routine maintenance tasks that shall be performed on a daily basis, other than attending breakdowns.

