



SECTION 5: SPECIFICATION FOR COMPREHENSIVE SERVICE AND MAINTENANCE OF THE PUMP POOL AND FILTER SYSTEM.

5.1 GENERAL

The work covered by this Specification is for the supply of all materials, appliances, labour and necessary incidentals for the service and maintenance of the Pump Pool And Filter System and Ancillary Equipment.

All work to be performed under this Specification shall be in accordance with the commercial practice, and must be in strict accordance with this Specification.

5.2 WORKMANSHIP AND MATERIALS

The work described in this Specification shall be performed by workmen skilled in the service, maintenance and repair of Pump Pool And Filter System and Ancillary Equipment of all types, and shall be executed in accordance with the best commercial practice.

All materials to be supplied in connection with work under this Specification shall be new and unused, and shall generally be of the best quality as regard manufacture and performance.

5.3 SUPERVISION

The Contractor shall have a Foreman in charge of the service, maintenance and repair work to be carried out under this Specification. This Foreman must be thoroughly competent in supervising the service, maintenance and repair of the Pump Pool And Filter System and Ancillary Equipment of all types and shall be in the direct employ of the Contractor, and acceptable to the Superintending Officer.

The Contractor shall have in his direct employ, workmen who are especially skilled in the service, maintenance and repair of Pump Pool And Filter System and Ancillary Equipment of all types.

5.4 SCOPE OF WORK

All machinery and equipment comprising the complete Pump Pool And Filter System and Ancillary Equipment shall be serviced and maintained.

The service and maintenance of the complete Pump Pool And Filter System and Ancillary Equipment shall be in strict accordance with the Servicing and Maintenance Schedule as set out in clause Schedule A below.

The Contractor shall advise the Superintending Officer of any defects in any part or parts of the complete Pump Pool And Filter System and Ancillary Equipment observed during routine inspection and service, and shall repair such defects if required to do so by the Superintending Officer.



The Contractor shall also provide emergency repair service during normal working hours and also during overtime hours if required to do so by the Superintending Officer.

5.5 CONSUMABLE MATERIALS

The Pump Pool Contractor shall supply the following consumable materials as and when required:-

1. All pump gland packing.
2. All carbon brushes required to replace worn brushes in electric motors.
3. All electric contact points required to replace worn electric contact points in switch gears, motor starter gears, electric control gears and electric relays.
4. All cotton waste, soap detergent and other cleaning materials required for cleaning purposes.

The costs of these consumable materials shall not be charged for separately by the Contractor, but shall be included in the fixed monthly rate quoted by the Contractor for the Service and Maintenance of the Complete Pump Pool And Filter System and Ancillary Equipment.

5.6 REPAIRS

The Contractor shall repair defects in the complete Pump Pool And Filter System and Ancillary Equipment on the instructions of the Superintending Officer. The costs of such repair shall not be included in the fixed monthly rate quoted by the Contractor for the Service and Maintenance of the complete Pump Pool And Filter System and Ancillary Equipment but shall be charged for separately by the Contractor.

All repairs on the complete Pump Pool And Filter System and Ancillary Equipment shall be guaranteed by the Contractor against defects in workmanship and materials for a period of one year to take effect from date of completion of repairs. During the guarantee period the Contractor shall rectify defects in repairs carried out by him with no additional charge to the Government.

5.7 SERVICE AND MAINTENANCE RECORDS

1. The Contractor shall provide a service and maintenance record book for the complete Pump Pool And Filter System and Ancillary Equipment being serviced and maintained by him. This record book shall be kept in the plant room of the Pump Pool And Filter System and Ancillary Equipment being serviced and maintained, and brief details of all service, maintenance and repairs carried out on the complete Pump Pool And Filter System and Ancillary Equipment shall be entered by the Contractor into this book for checking purposes. The address and telephone number of the Contractor's service station



shall also be entered into this record book to facilitate emergency service calls.

2. The Contractor shall also keep an accurate detailed record in duplicate of all service, maintenance and repair work carried out by him on the complete Pump Pool And Filter System and Ancillary Equipment. This record shall be in the form of a Maintenance/Repair Sheet, and shall be countersigned by the Superintending Officer each time the Pump Pool And Filter System and Ancillary Equipment is attended to by the Contractor.

5.8 RATES FOR SERVICE AND MAINTENANCE

The rates for the Service and Maintenance of the complete Pump Pool And Filter System and Ancillary Equipment shall be as shown in the Schedule of Prices for this Contract.

These rates shall be quoted for by the Contractor at the time he submits his tender, and shall hold good for the period of **THREE years** commencing from the end of the warranty period. The Contractor may be required to enter into a contract for the above period with the Government on the Standard Form of Contract for Service and Maintenance of Pump Pool And Filter System and Ancillary Equipment (a copy of this Standard Form may be inspected at the Office of the Pengarah JKR Johor.)

5.9 PAYMENTS

Payments shall be made in accordance with Clause 24 of the Conditions Of Contract, but bills presented for payments must be accompanied by a full statement and substantiated by one copy of the individual maintenance/repair records required.

5.10 SERVICING AND MAINTENANCE SCHEDULES

The Contractor shall inspect and service the machinery and equipment comprising the complete Pump Pool And Filter System and Ancillary Equipment at the above premises periodically as scheduled in the check list except where otherwise directed by the Superintending Officer.

The check list is in no way exhaustive and shall not in any way relieve the Contractor from executing any other work necessary to ensure the efficient functioning of the Pump Pool And Filter System and Ancillary Equipment.

The Contractor shall report in writing to the Superintending Officer any defect/s observed in any part or parts of the complete Pump Pool And Filter System and Ancillary Equipment. The report shall state the cause/s of the defect/s observed, and shall include an estimate of the cost of repairs required



SCHEDULE A

No	Item	Frequency		
		Monthly	Quarterly	Yearly
1	WATER PUMPS			
a	Check all seals, glands and pipe lines for leaks & rectify as necessary	√		
b	Check pump rotation manually	√		
c	Check and adjust pump glands as necessary		√	
d	Check all pump bearings and lubricate with oil or grease as necessary	√		
e	Check the alignment and condition of all rubber couplings between pumps and driving motors, and rectify as necessary	√		
f	Check the tension of all belt drives, and adjust as necessary	√		
g	Check all bolts and nuts for tightness, and tighten as necessary	√		
2	ELECTRIC MOTOR			
a	Check all motor bearings, lubricate with grease as necessary	√		
b	Check carbon brushes and slip rings of all motors, and clean as necessary. Renew carbon brushes as necessary		√	
c	Check safety devices fitted to all motors, and clean, adjust and lubricate as necessary	√		
3	SWITCHBOARD			
a	Inspect and check the routine operation of all electrical starters, electrical control gears, automatic switchover control gears, relays and ancillary electrical apparatus	√		
b	Clean or renew electric contactors as necessary		√	
c	Renew electric fuses as necessary.		√	
d	Inspect and check all cable and wiring connections		√	
4	BALANCING TANK			
a	Check tanks for leaks & operation of ball valves & rectify if necessary	√		
b	Check all accessories (e.g. water level indicator, ladder, etc)	√		
5	PIPING AND FITTINGS			
a	Check all water piping, valve, hose and reels, etc. for leaks	√		
b	Flush out system of all dirt			√



No	Item	Frequency		
c	Check for air lock in the system & rectify accordingly	√		
d	Reprime the Pump Pool And Filter System			√
6	SIMULATION TEST			
a	Test run all pump for automatic and manual starting and switchover operation for a minimum running period of an hour	√		
7	PAINTING			
a	Check overall painting and repaint if necessary			√
8	SAND FILTER			
a	As per manufacturers requirements			
9	CHEMICAL DOSING SYSTEM			
a	As per manufacturers requirements		√	