Father Muller Medical College Hospital



FATHER MULLER CHARITABLE INSTITUTION MANGALORE-575 002 KARNATAKA

MAINTENANCE DEPARTMENT MANUAL NABH

FMMCH/NABH/ MAINT/ 26

NAME: MAINTENANCE DEPARTMENT MANUAL Verified By: Quality Manager Ms. Roopa Priyanka Dsouza Dr. B. Sanjeev Rai



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MAINTENANCE DEPARTMENT **MANUAL**

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RELEASE AUTHORIZATION

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This Document is released under the authority of
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Chief of Medical Services
Father Muller Charitable Institution

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Father Muller Charitable Institution

Mangalore-575002

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DISTRIBUTION LIST

Date

This Manual is approved by the Chief of Medical Services, Father Muller Medical College and Hospital and the following will have a copy of the Maintenance manual.

Sl. No	Holder's Name	Designation	Department	Type of copy
1.	Rev. Rudolph Ravi D'sa	Administrator, FMMCH	Administration	Soft copy
2.	Dr.B.Sanjeev Rai	Chief of Medical Service	Administration	Soft copy
3.	Quality Team	Quality Manager	FMMCH	Soft copy & hard copy
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AMENDMENT RECORD

Date

Sl. No	Page No	Section/ Clause/ Para/Lin e (as applicabl e)	Date of Amendme nt	Amendment Made	Reasons of Amendment	Signature of Quality Manager	Signature of Chief of Medical Services
1	7,8	Para 1 &2	26/11/16	Certain equipments added/ removed	As per the current equipment count	Dijeto	Mi
2	9,10	-	26/11/16	Changes in staffing made	As per current staff strength	Dijeto	Al.
3	15	1 st para	26/11/16	Frequency of water level check changed	As per current practices	Dijeto	A.
4	19	2 nd para	26/11/16	HEPA filter replacement frequency checked.	As per current practices	Dijeto	A.
5	21	Table 1	26/11/16	Register list altered. Register 6 and 10 removed.	As per current practices	Dijeto	A.
6	8	4 th line	01/01/18	Scope – modified	As per current practices	Q.,,3	A.
7	10	Table1	01/01/18	Competency Matrix- Staffs and experience added	To match with Current practice	Phys	A.
8	14	1 st para	01/01/18	Equipment planning- modified	To match with Current practice	Pris	A.
9	15	Sec 8.1	01/01/18	Maintenance Plan- Modified	To match with Current practice	<u> </u>	A.
10	23	Sec 8.3	01/01/18	Disposal Policy Added	As per current practices	D-13	A.
11	25	Table 2	01/01/18	Register list altered	As per current practices	Days	Al.

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1. INTRODUCTION

Father Muller Charitable Institution Hospital's Maintenance Department staff deals with mechanical, electrical and plumbing systems. "We do the stuff people don't see, like heat and ventilation, making sure the air is clean, keeping temperatures and humidity regulated. We keep all the utility systems working, electrical, plumbing, HVAC, etc"

We maintain Electrical, plumbing and drainage, Water supply and solar Water heaters, Compressed Air and Oxygen Supply, Air- Conditioner, Generators, Transformer Refrigerators and Morgue. We also maintain diesel boiler, Sewage treatment plant, laundry equipments and kitchen equipments, Elevators, Reverse Osmosis Plant, ETO and Autoclave.

"We maintain generators to keep power in case of power outages. We maintain boilers for heating and air conditioning for cooling. We maintain equipment for all the departments throughout the hospital. Equipments such as dietary equipment, housekeeping equipment, etc.

2. ABBREVIATIONS

ETO - Ethylene Tetra Oxide

HVAC – Heating Ventilation and air Conditioning

STP – Sewage Treatment Plan

UPS – Unlimited Power Supply

Kwa – Kilowatt Ampere

DG sets – Diesel Generator Sets

VCB – Vacuum Circuit Breaker

RO plant – Reverse Osmosis Plant

VRF – Variable Refrigerator

TC- Transformer

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3. SCOPE

The maintenance department is responsible for the maintenance of electrical appliances, plumbing, air-conditioners, central compressed gas supplies, laundry equipments, kitchen equipments and appliances as well as operation and maintenance of generator sets and air-conditioner chiller plant. It also looks after the functioning of the Liquid Oxygen Plant, 700 kld Sewage treatment plant, DG sets, and transformers. The Department is functional 24 hours of the day.

The Department personnel also do the maintenance work of the institutions buildings including Doctors Quarters, hostels and Mullakad PHC. Areas Covered are:

- Electrical
- Plumbing
- Central Compressed Gas Supplies
- Drainage
- Water Supply and Solar Water Heaters
- Air- Conditioner
- STP

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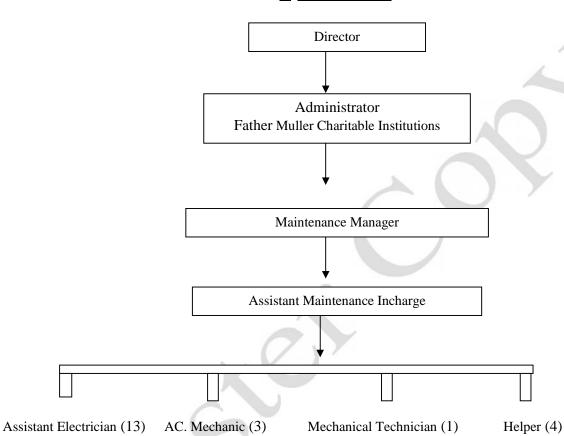


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4. HEIRARCHY



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5. COMPETENCY MATRIX

Sl No	Name	Employee	Designation	Qualification	Experience
		Code			1
1.	Mr. Michael L. Pereira	25885	Maintenance Manager	ITI Diploma	16
2.	Mr. Ronald M.Crasta	06020	Asst.Maintenance	PUC	23
			ncharge		
3.	Mr. Raviraj	28059	Mechanical Technician	Mechanical Diploma	10
4.	Mr. Ashok K. Cutinha	27382	Asst. Electrician	SSLC	13
5.	Mr. Praveen D'Souza	30337	Asst. Electrician	ITI	6
6.	Mr. Praveen L D'Cunha	28287	Asst. Electrician	ITI in MRAC	10
7.	Mr. Sachan D'Souza	28477	Asst. Electrician	ITI	9
8.	Mr. Rilson D'Souza	30133	Asst. Electrician	ITI	8
9.	Mr. Unis Wilfred Ferrao	30066	Asst. Electrician	PUC, ITI	6
10.	Mr. Gunaraj	29435	Asst. Electrician	ITI	8
11.	Mr. Wilson Lobo	30338	Asst. Electrician	ITI in MRAC	6
12.	Mr. Ivan D'Souza	30069	Asst. Electrician	ITI	6
13.	Mr. Stany Gonsalves	09010	Helper	SSLC	22
14.	Mr. Priestly D'Souza	14660	Helper	SSLC	19
15.	Mr. Sylvester Veigas	21975	Helper	7 th	18
16.	Mr. Rakesh B G	30134	Helper	PUC	7
17.	Mr. Joel Praveen Figredo	31162	Asst. Electrician	ITI, Diploma	5
18.	Mr. Pradeep Roshan	31263	Asst. Electrician	ITI	5
	Rodrigus				
19.	Mr. Nithesh K	32171	Asst. Electrician	ITI	4
20.	Mr. Roshan D'souza	33756	Asst. Electrician	ITI	1
21.	Mr. Deepak Rego	33755	Asst. Electrician	ITI	1

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22.	Mr. Shailesh D'souza	33754	Asst. Electrician	Diploma	1
23.	Mr. Pavan Montero	33757	Asst. Electrician	ITI	1

6. STAFFING PATTERN

Date

SI.	Designation	Working Hours *	No. Of Staff
No		A	
1	Maintenance Manager	8:30 am to 5:30 pm	1
2	Asst. Maintenance In-charge	8:30 am to 5:30 pm	1
3	Mechanical Technician	8:30 am to 5:30 pm	1
4	Asst. Electrician	8:30 am to 5:30 pm 10:30	8
		am to 8:00 pm	4
		8:00 pm to 8: 30 am	1
5	Ac Mechanic	8:30 am to 5:30 pm 10:30	2
		am to 8:00 pm	1
	X	8:00 pm to 8: 30 am	0
6	Helper	8:30 am to 5:30 pm 10:30	2
		am to 8:00 pm	1
		8:00 pm to 8: 30 am	1

^{*}Staff is present as and when any need arises.

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7. DUTIES AND RESPONSIBILITES OF EACH STAFF-DESIGNATION WISE

Maintenance Manager:

- Accomplishes electrical maintenance human resource objectives by orienting, training, assigning, scheduling, coaching, counseling, and disciplining employees.
- Planning, monitoring, appraising, and reviewing job contributions.
- Enforcing policies and procedures of the department.
- Regularly provides information and recommendations on electrical maintenance activities to the management
- Preparing and completing action plans
- Implementing production, productivity, quality, and customer-service standards
- Resolving problems
- Completing audits
- Identifying trends, determining system improvements and implementing change.
- Provides electrical power by maintaining electrical equipment and outlets.
- Wires departments by studying blueprints; laying-out circuitry for common and dedicated electrical outlets.
- Provides engineering support by responding to requests for mechanical and electrical problems.
- Complies with codes by adhering to requirements; advising senior management on needed actions.
- Maintains supplies inventory by checking electrical material stock to determine inventory levels;
 anticipating needed supplies; placing and expediting orders for electrical material; reviewing and approving invoices;
- Keeps equipment operating by following operating instructions; troubleshooting breakdowns; maintaining supplies; performing preventive maintenance; calling for repairs.
- Updates mechanical engineering job knowledge by participating in educational opportunities; reading professional publications; maintaining personal networks; participating in professional organizations.

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Asst. Maintenance In charge:

- Assisting the incharge and taking charge of activities in the department.
- Enforcing policies and procedures.
- Preparing and completing action plans
- Resolving problems
- Provides electrical power by maintaining electrical equipment and outlets.

AC mechanics

- Arranging the servicing and maintenance of Blue Star Air-condition machines by the company
- Seeing to the servicing and maintenance of the Voltas without AMC and carrier Air-condition machines.
- Servicing and maintenance of the freezer
- Servicing and maintenance of the cold storage
- Servicing and maintenance of the coolers in the institution

Assistant Electrician:

- Routine Maintenance of all the buildings like wards, college blocks, hostels and staff quarters.
- Daily, weekly and monthly maintenance of all equipments under Maintenance Department
- Attending to electrical, Central Compressed gas supply and plumbing repairs
- Maintenance of Generators, Water pumps, solar heaters
- Maintenance of laundry equipments and kitchen equipments
- Maintenance of, STP
- Handling complaints raised by the user department

Helper

- Routine Maintenance of all the buildings like wards, college blocks, hostels and staff quarters
- Attending to electrical, Central Compressed gas supply and plumbing repairs
- Maintenance of Generators, Water pumps, solar heaters
- Maintenance of laundry equipments and kitchen equipments
- Maintenance of STP

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8. DEPARTMENT STANDARD OPERATING PROCEDURES (SOP)

8.1 PROCEDURES/WORK PRACTISES FOLLOWED IN THE DEPARTMENT

Equipment Planning:

Maintencae Manager along with the team decides on purchase list for all the end users, the list of equipments to be purchased in given to the Management justifying the reason for purchase. The requests are certified by the Management and the same is handed to the Purchase committee for further actions

Procurement of Equipment:

- Maintenance department is also a part of Purchase committee.
- Any new equipment requirement is intimated to the maintenance department and an assessment for the same is done i.e. to the check whether the requirement is appropriate or not.
- If found appropriate then the suppliers are contacted in order to get the details regarding the same equipment.
- Maintenance department co-ordinates with the Purchase committee in selecting the vendor and in negotiating the price.
- Once the details like technical specifications, price etc are finalized by the Purchase Committee, these details are forwarded to Purchase department, which further takes steps to procure the same.

Maintenance plan:

1. Maintenance plan for Manifold room:

- Manifold Room maintenance is done on daily basis and cleaning is done on weekeely basis.
- Greasing and lubrication of air compressors and vacuum pumps is done every week
- Water is changed in the cooling tower every week and water level to be checked everyday
- Air dryer is changed on every week
- Water collected in air compressor water trap, due to moisture condensation is drained in the morning and in the evening.

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• Oxygen, nitrous, nitrogen and carbon dioxide cylinders are filled and changed as per the requirement.

2. Liquid Oxygen Yard

- Liquid Oxygen yard is cleaned and maintained everyday
- Frost formed on the coil and line is cleaned with water three times during the day and once in the night.
- Oxygen level is checked and documented as per the register maintained near the Liquid Oxygen plant.

3. DG Room and Panel Room

- DG Room and Panel Room is cleaned and maintained every day.
- Diesel level, belt, pumps, battery voltage, battery charger, cooling tower water, rotation pump and oil level is checked every day.
- Blower fans (Exhaust), parameters on panel is checked during working of the DG Set.
- Amps, kW, water and oil temperature and working hours are documented every day.
- Load of the sync panel is checked when DG is functional.
- Sync Panel UPS is checked on daily bases

4. ATS panel room:

- ACB's are checked everyday
- Control Panels parameter, Amps, Voltage, Earth current, KWH and power factor value is documented every day.
- Earthing maintenance is done every week

5. Transformer yard / Substation

- On a daily basis, oil temperature and winding temperature is checked and recorded
- Incoming voltage, current, earth current, panel parameters, VCB condition and indication, relay, control Indications, Fault relay, spring load, ON- OFF indications are checked on daily basis.
- Earthing maintenance is done every week
- Cleaning of transformers, VCB's, RMU and yard is done every week.
- Only breakdown maintenance is carried out as and when the need arises.
- Transformer Reading and Power Factor Panel reading is documented everyday by the staff who is on shift duty

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6. RO Plant

- Reverse Osmosis plant is cleaned and maintained every week
- Backwash is given twice during the day and twice during night
- 2000 LPH (2) to be run during the daytime and 2000 LPH(2) is run during night everyday
- Both Reverse Osmosis water storage tanks to be emptied every Saturday after receiving information.
- Sodium Hypocloride is retained in the tanks for a minimum of 3 hours after which cleaning and refilling of the tanks has to be done.
- Before performing any maintenance on the pump internal pressure is released by operating bleed value. The voltage is maintained within the range.
- Bearings are lubricated with high temperature lithium based grills.
- Water level is checked twice in the day and twice in the night.
- Checked parameters are documented.

7. Morgue freezers:

- Freezer is cleaned with warm water mixed with a little mild cleaning agent and dried thoroughly.
- All removable parts are washed in the same way and reassembled
- The power supply is switched on and allowed to run for 1 hour before reloading
- At least once a thorough cleaning is done in order to maintain a standard hygiene.
- Temperatures are read and documented in the registers at the Morgue at 6 am, 9 am, 12 noon, 4 pm, 7 pm and 12 midnight.

8. Laundry Equipments:

- All the machines in laundry is checked on everyday .
- Oil, lubrication, electrical motors, gearbox, belts, chains, temperature, steam, water pressure & roller rotation has to be checked every day
- Drain the water from air storage tank in every day

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9. STP plant:

- The plant operation and daily events are documented on regular basis.
- Regular analysis of treated water is done to assess the process performance.
- If the treated water standards are not matching with standard norms then inlet water characteristic and water quality from source of supply is checked
- Periodically following parameters of treated water are checked to ensure satisfactory operation of the plant;
- Colour, taste and odor, suspended solids, total dissolved solids pH, chlorides sulphates, calcium, magnesium, total alkalinity, nitrates, fluorides, iron, copper, manganese.
- Pressure sand filter media is checked with 3% topping every year.
- Since filter vessels are made of MS periodic painting is done.
- Multiport valve is replaced if not functioning properly.
- If sand is coming out of the vessel the strainer is removed, and properly tightened so that no carryover of sand takes place. It is ensured that there is no threading mismatch when strainer is fitted to the multiport valve.
- Periodic interval inspection is done.
- Leaking valves and joints are rectified immediately by tightening the loosened bolts or changing ceiling joints or replacing gland packing.
- The inlet and suction ball of chlorine dozer is checked.
- It is ensured that correct flow rate of chlorine occurs through dosing pump.
- All pipe connections are checked to ensure no leakage
- The working of inlet outlet pressure gauge is checked
- The suction of brine solution, chlorine dozing tank strainer, and distributor of filter if clogged is cleaned.
- The dozer is opened and interior parts are cleaned.

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- The pressured sand filter is opened and the fouling is removed if required.
- All the organic flouring is removed from the resin bed.
- All the worn out parts are replaced
- The ejector assembly, if not giving proper suction is replaced.
- Gaskets valves and hose pipes are replaced if required.
- All electrical cabling and its earthling are checked.
- It is inspected two times every day and Pumps, Blowers, Panels and Water level are checked.
- If on inspection repair need is felt than it is done immediately by maintenance staff
- If it cannot be repaired then local technicians are informed for repair.
- The repair is supervised by maintenance staff.

10. Critical Area, Wards, Supportive area:

- Fans, Switch Boards, Lights, Power Points, Water taps, Drainage Outlet, O2 Outlet / Flow meter, Suction Outlet, Air Outlet, Nitrogen Outlet, Nitrous Outlet, Carbon Dioxide Outlet, Refrigerator, Autoclave (if applicable), UPS, Hot Plate, Guesser, Bathroom Flush, Aqua guards, AC are checked on daily basis and in case of any complaints, the repairs are done.
- The medical gas lines installation is being outsourced to an external agency.
- Breakdown maintenance is carried out by maintenance department.

11. Drinking Water Treatment Plant:

- Filter backwash 4 times daily.
- Water TDS, Ph value, chlorine content is checked
- SUMPS are storage tanks which store water that can be redistributed to the whole institution. There are 12 sumps at various locations for sufficient storage of water..
- These tanks and sumps are cleaned every 6 months.
- Chlorine dose regulates the chlorination of the water (1 drop per 20 seconds)
- Water is filtered through and in built filter
- Hospital water supply systems shall not be connected with any other piping system or fixtures

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that could allow contamination

- Water Supply: Water is supplied to FMMCH by the Mangaluru City Corporation
- Safe drinking water: Our health care facility provides safe drinking water. Water storage tanks are cleaned regularly and the quality of water is sampled periodically to check for bacterial contamination.)
- Water purification units are installed in various areas at FMMCH.
- Store water in a hygienic environment if required.

• Water tank Cleaning:

The water used at FMMCH is stored at various over-head and underground (Sump) tanks.

Step 1: Cleaning

• Empty the tank

Open the outlet valve or tap and drain out any remaining water liquid. Permanent storage tanks are usually fitted with a washout valve that draws liquid from the base. Use this, rather than the normal outlet valve, for emptying.

• Scrub the internal surfaces of the tank

Use a mixture of detergent and water (household laundry soap powder will do) to scrub and clean all internal surfaces of the tank. This can be done with a stiff brush. (Attaching the brush to a long pole may make it possible to clean the tank without entering it.)

Step 2: Disinfection

The most common way of disinfecting a water tank is by chlorination. Roughly, 2.5 grams of good quality bleaching powder is required to disinfect 1000 litres of water. This will give an approximate dose of 0.7 mg of Chlorine per litre of water.

Dissolve bleaching powder in water.

The bleaching powder required for disinfecting the tank is placed in a bucket (not more than 100g in one bucket of water) and made into a thin paste. More water is added till the bucket is nearly three fourth full. The contents are stirred well, and allowed to sediment to 5-10 minutes when lime settles down. The supernatant solution which is chlorine solution, is transferred to bucket, and the chalk or lime is discarded.

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Water (m ³)	Bleaching powder (gms)
10	23
100	230
120	280
150	350
200	470
250	580
300	700

Date

 $(1m^3 = 1,000L)$ **Delivery of chlorine solution:**

The chlorine solution is added to the water in the tank . The chlorine solution is added to the water by Dosing Pump. The pump is capable of dosing 2ppm of free chorine to the water.

Step 3: Regular checking of bacterial count done every three months.

Collection of Samples for Water Analysis

Samples of water for bacteriological testing must be collected in sterile bottles and care *must* be taken to prevent accidental contamination of the water during its collection.

12. Elevators:

- Control the operation of the elevators without any passenger in the car.
- When the elevator is not to be used for a long time, turn off the mains power switch.
- Check the elevator and the area around it.
- Always clean the doors, the inner area of the car, the floor, the hall and the car sill.
- Ensure the hall is free from elements that may obstruct the proper functioning of the elevator.
- Maintenance of the hall door, entrance frame and car operating panel.
- Do not tamper with elevated doors or try to open it with force.
- If person gets locked inside the Maintenance team ensures that person is safely brought out of the lift.
- In case of repair the responsible agency will be contacted.

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13. Air conditioners:

- Mainly maintained by outside agencies
- Preventive maintenance is done every 3 months and the service report is filed in the maintenance department
- Breakdown calls are received by the maintenance department
- Emergency breakdown calls are attended to by the department and the other complaints are forwarded to the concerned outside agencies.
- HEPA -filters are replaced based on vendor recommendation as per the DOP test results.

14. Boiler

- There are two boilers in the hospital that is fire boiler and diesel boiler. The authorized person handles boiler. Repairs are done as per the requirement. As per the schedule the servicing is done.
- At the end of the days operation, the drain wall is opened. Initially dirty water will come out. The valve is closed when clean water start coming out. The access door is opened on top of the chimney duct and the soot inside the tubes are cleaned with the round wire brush. This is done at least once a week.
- If any water leakage is noticed, the chimney duct is removed and then the economizer if the leak is in an accessible place, sealed with welding or brazing. Otherwise the economizer is replaced.

15. Solar and Heat optimizer:

- The economizer and the optimizer can be cleaned together.
- Solar Temperature pumps is operated two times in a day and two times in the night

8.2 SOP FOR ANY COMPLAINT:

- From the user end if there are any complaints pertaining to equipments / electrical items/ plumbing/ medical gases, complaint has to be raised online or through a written requisition format to the maintenance department.
- In case of emergency, complaints are immediately attended without an online or written request.
- After collecting the required instruments and necessities respective staff attends the concerned department for in-house servicing.

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- If they are unable to repair even after in-house servicing, the complaint is logged to the local technicians or respective vendors for the repair.
- If any items are to be replaced necessary arrangements are done by maintenance manager.
- In case of night shift, the night duty staff reports work completed to maintenance manager and hands over the pending work to the day duty staff.

8.3 SOP FOR CONDEMNATION AND DISPOSAL:

Reasons for disposal of equipment

- Beyond economical repair Where equipment comes in and the cost of repairing it is
 considered too high after looking at the current value (taking depreciation into account), and the
 age of the equipment.
- **Technically obsolete** Parts and service support are no longer available.
- Clinically obsolete The clinician using the device (or manufacturer) recommend replacement for clinical reasons.
- Equipment that has been damaged by contamination.

Reasons for disposal in stores

- Surplus stores
- Obsolete stores
- Unserviceable stores
- Scrap
- Empties

Condemnation and disposal Procedure:

- If any **equipments and electrical items** of Maintenance fall under the above category of disposal, respective Managers / Incharges should inspect for its status, history sheet, performance record, cost of repair, and purchased cost.
- For all the item proposed for disposal **above 7 lakh** respective Managers / Incharges should study the total cost involved in repair, for the item **below 7 lakh** list of the items to be condemned should be prepared.

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- After the inspection, incharges should write official report to condemnation and disposal committee coordinator listing out all the items to be condemned by stating the reason for condemnation and disposal.
- All items to be condemned will be discussed in the condemnation and disposal committee and decision on disposal will be taken by the committee members.
- Once the request for condemnation is approved by the committee the item is brought back to Maintenance/ General Store and following steps are carried out.
- All the list of item condemned should be maintained by the respective Managers / Incharges

The item can be disposed in following ways:

- The equipment undergoes a process called cannibalization were as far as possible the spare parts are used up
- On receiving intimation from General Stores that e-waste disposal is going to take place in the
 institution, a list of all the equipments to be disposed is made.
- The equipments are then sent to general stores from where it is given out for disposal to the vendors authorized by the Pollution Control Board to buy e- waste.
- Sell to authorized agencies, scrap dealers, etc

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9. QUALITY OBJECTIVE OF THE DEPARTMENT

- To ensure smooth uninterrupted functioning of the hospital with regards to electrical ,plumbing and other related matters
- To provide quick, efficient and staff friendly service
- To maintain state of art electrical and plumbing system in the institution
- To update the staff with latest knowledge in the concerned field
- To maintain a waste free environment through regular and efficient condemnation and disposal

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10.TRAININGS REQUIRED

Date

The staff acquires 6 month training under experienced staff of the department. Staff requires the following training programs:

- Training regarding safety measures to be taken at the workplace
- Training regarding disaster management
- Training regarding new technology introduced in the hospital.
- Use of personnel protective equipments
- Fire Safety Training
- Hand Hygiene Protocol
- Employee and patient rights and responsibilities

11.LIST OF REGISTERS/FORMS IN THE DEPARTMENT

Sl. No.	Name of the Register	Number
1.	Complaint register	FMMCH/Maint/Complaint register/1
2.	Chlorination register	FMMCH/Maint/ Chlorination/2
3.	1250 KVA DG set Log Book	FMMCH/Maint/1250 KVA DG/3
4.	1250 KVA DG set Log Book	FMMCH/Maint/1250 KVA DG/4
5.	750 KVA DG set Log Book	FMMCH/Maint/750 KVA DG/5
6.	Aqua guard Service Register	FMMCH/Maint/Kent/6
7.	Mortuary 4 body (2)	FMMCH/Maint/ Morg 4/7
8.	Mortuary 3 body	FMMCH/Maint/ Morg 3 /8
9.	Autoclave Service Reports	FMMCH/Maint/ Autoclave/9
10.	STP register	FMMCH/Maint/STP/10
11.	Substation Register (LT & HT)	FMMCH/Maint/S/10
12.	UPS Service	FMMCH/Maint/STP/10

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13.	Laundry Equipment Service Report	FMMCH/Maint/STP/10
14.	Daily Maintenance Registers	FMMCH/Maint/STP/10
15.	RO plant Service Report	FMMCH/Maint/STP/10
16.	Elevator Service Reports	FMMCH/Maint/STP/10
17.	AC Service Reports	FMMCH/Maint/STP/10

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