

4.4.2 *There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.*

Response:

There are established systems and procedures for maintaining and utilizing physical, academic and support facilities such as laboratory, sports complex, computer, classroom etc in the University. The maintenance of physical, academic and support facilities are carried out by the respective departments with the help of in house staff on daily basis and periodically. And care has been taken to keep the equipments, machine etc in working condition. In case of breakdowns standard procedure is followed to bring the equipment/machine in working condition. A supervisor is appointed to monitor and maintain the physical facilities and Housekeeping. A brief description is presented below on maintenance and utilization of some facilities.

1. Laboratories (All Labs & Computer center): Each laboratory has one teacher as lab in-charge, a Lab Assistant and attendant. Lab in-charge is responsible to maintain and upgrade the laboratory with necessary equipments from time to time to cope with change in the syllabus. Dead stock verification (Physical Verification) is carried out to verify working/nonworking/missing equipments etc. Preventive maintenance and performance monitoring is carried out. Every laboratory assistance keeps the record of utilization of equipments, computers and other required material for experiments.

2. Library: Librarian with supporting staff has been appointed to maintain central library. They focus on the availability and utilization of instructional material in teaching and learning process. At end of the Academic year stock verification is done. Librarian will prepare the report on the same and utilization of books by the students and staff. Procurement of books as per the requirement is initiated through library committee by inviting the requirement of books from various departments this is then processed following the procurement procedure.

3. Sport complex/ground/equipments: Physical Director of the University looks after the sports facilities and the activities. The sports equipments are issued to the students as per the schedule of the events. If any equipments get faulty sport director submits proposal for maintenance. Preventive maintenance measures are taken in time. Sport director is responsible for keeping the record of utilization of sport Facilities, activities held, awards for the students etc.

4. Class Rooms: Class rooms are allocated to all departments along with necessary ICT tools. The class rooms are utilized as per the time table of the department. The class rooms are cleaned on daily basis monitored by institute supervisor. Head of the institute, HODs and Class

teachers also monitor the cleanliness and ensure that the cleanliness is maintained in the class rooms.

5. IT facilities: All departments in the university are having PCs, IT facilities: All departments in the university are having PCs, essential software and peripherals .The laboratory technicians and system administrator maintain the IT facilities in the university. In case of major issues of maintenance vendors are hired for maintenance of IT facilities.

6. Electrical, Drinking water coolers etc.: University has employed technicians(electrician and plumber) for up keeping and maintenance of electrical and water drinking facility. University has also appointed housekeeping staff to maintain the gardens.

7.CCTV, Security etc: To maintain internet connectivity and CCTV security system, network and system administration team is appointed.LCD projectors, EPBX system, air conditioners are maintained regularly. Security staff under a security supervisor is employed to safe guard the whole premises.

Key Indicator - 4.4 Maintenance of Campus Infrastructure (20) Annexure 4.4.2

Metric No.		Weightage
<p>4.4.2</p> <p>Q1M</p>	<p><u>SOP of Risk Management (Short Circuit and Electrocutation)</u></p> <p><u>Short Circuit:</u></p> <p>A short circuit is a situation in which insulation failure due to overloading of line/poor & damage joints causes excessive heating and damaged to electrical devices. A short circuit is generally an unintended electrical connection between current carrying parts. The short circuit may cause burning of equipments, fire in the building/damage of other assets, Electrocutation etc.</p> <p><u>Main Cause of Short Circuit:</u></p> <ul style="list-style-type: none"> • Overloading of electrical wiring • Poor/damage of insulation of wires • Loose joints connection of wires • Presence of moisture/ water near electrical connection <p><u>Prevention of Short Circuit:</u></p> <ul style="list-style-type: none"> • It is most important to prevent overloading/overheating /humidity, which are causes of dielectric breakdown. It is necessary to separate the live part and insulating material from the structure member/water pipe /gas pipes frames of different buildings. To prevent short circuit fires, electric fire alarms (short circuit fire alarms) should be installed in the necessary locations. • Waterproof the moist/humid locations where electric facilities are set up. • Use tape or the prescribed connection apparatus that allows sufficient insulation effectiveness for wire connections. • Frequent inspection of the presence of short circuit and the installation of a circuit breaker. • Shut off the power when electricity is not being used. • To ensure optimum capacity fuses and circuit breaker for every load. • Prohibition of use of several plugs/extension cord for heavy load in single socket. • Periodical inspection in order to prevent overheating due to 	<p align="center">10</p>

faulty connection at the switch.

- Prohibition the insertion of several wires in same conduit.
- Use of ISI rated/approved electrical equipments/cables/spares.

Prevention of Electrocutation:

- Switching off the wires/circuit in which the repairing works are to be carried out.
- Use of proper tools for repairing work
- Use of ISI mark safety gloves and shoes for working on live wires
- Make sure that all components are working and functioning properly after repair work
- Make sure that earthing is properly connected to all the apparatus

Immediate action in case of Short Circuit:

- Supply related to short circuited area is switched off
- Fault identification and isolation of faulty portion
- Restoration of supply after isolation of faulty portion
- Cause identification and repairing action of short circuit area

Immediate action in case of Electrocutation:

- Immediate Switching off the power of the electrocuted area
- Immediate Medical Aids are provided to victim
- Accident report is communicated and investigation is carried out by authorized team.

Baddi University of Emerging Sciences and Technology

STANDARD OPERATING PROCEDURE

MAINTENANCE DEPT

AIM:

The Maintenance Department works under the guidance of Registrar and is headed by the Maintenance incharge and assisted by Supervisors to look after the maintenance work (Electrical, Plumbing, Monitoring function of STPs). The aim of this “SOP” is to provide the services (Operation as well as repair and maintenance) in most effective manner. To achieve this aim, the following operating procedure has been devised and followed by all concerned members. The procedure is based on the requirements, available resources and in line with the policy of Baddi University of Emerging Sciences and Technology. The maintenance services are provided for 24x7.

Scope of Work:

1. Operation, Repair and Maintenance of total Water Management System that includes.
 - Bore Well Pumps
 - Submersible
 - Water purifier (RO System)
 - Water Coolers
 - Water Geysers
 - Monitoring function of STP
 - Up keeping of all underground/ over head water tanks
 - Periodical water testing analysis. Conservation of water by implementing rain harvesting system.
2. Repairing of all plumbing and sanitary items.
3. Repairing of all Offices, Hostels & Faculty Flats furniture.
4. Repair and Maintenance of all Electrical Fittings/ Equipments HT lines, main panels and Generators.
5. Civil Work:

- Masonry work
- Water leakage/Seepage repairing work
- Periodical Color wash/OBD/Painting of Buildings
- Replacement of broken glass panes
- Overall updating of buildings of University Campus

Roles and Responsibilities:

1. **Maintenance Incharge:** Over all coordination, supervision and support of Maintenance activities . That mainly includes.

- Responsible to provide all the maintenance related services for all activities as institute/department.
- Routine monitoring of the complaint status and immediate solution/action plan for the unsolved problems.
- Monitoring and providing the required inputs for completion of work.
- Submission of proposal of Monthly/quarterly requirements of Electrical, Plumbing and Fitment/Carpentry items to higher authorities to obtain necessary approvals. Pos are released accordingly (locally/through Central Purchase)
- Timely proposal for awarding the AMCs.
- Routine monitoring of Store/Stock Position including inventory and Material Consumption.
- To explore the most Prospective Vendors/Sources for achieving, better and cost effective services.

Supervisors Maintenance (Mechanical):

(RO plant, STP plants, Plumbing/Sanitary, carpentry/Fitment and Civil related work).

1. Check the main water tank per shift per day.
2. Check the overhead tank level.
3. Check the RO system
4. Maintain their log book properly.
5. Operate the system as required.
6. Attend the complaints timely.
7. Maintain the preventive maintenance i.e. TDS, Water tank cleanliness for sedimentation.
8. Periodical check of RO water from authorized labs as per the parameters.
9. Repair and maintain all plumbing equipment.
10. Keep the record of all plumbing equipment.
11. Under general supervision, perform repair and

maintenance of structure and related physical facilities, act as lead worker to other classified staff in the area and perform related work as required.

12. Cleans maintains, adjusts, calibrates and services equipment used in the performance of duties.
13. Monitors work done by outside contractors for adherence and report back to Maintenance Incharge.
14. Responds to routine and emergency calls for repairs and service.

Supervisors Maintenance (Electrical):

(Electrical, EPABX & Phone Lines, Air Condition & Water Cooler)

1. Complete repair, maintenance of electrical services.
2. Look after allotment of new telephone connections and lines where required repair and maintenance of telephone services in campus.
3. Maintenance of electrical services in hostels.
4. Note the all sub meter readings and preventive of monthly Electricity charges list for all vendors and residents of campus in log books.
5. Maintain the repairing job of electrical equipment.
6. Check all area lights and repair and change the fuse Bulbs Fans, Tubes, CFLs etc.
7. Supervise the outside vendor for electrical job work and confirm work completed satisfactorily.
8. Attend the all common vendor area and cafeteria electrical fault and complaints.
9. Check the all exhaust and fresh air fans in all blocks, cafeteria, labs etc.
10. Carry out preventive maintenance.
11. Keep the record of all equipment.
12. Attend all the break downs maintenance and emergency maintenance co-ordinate with assigned task to electrician.
13. Arrange the electrical connection for party function and conference area.
14. Providing necessary physical arrangement during training programmers, seminars and workshop of the institute i.e. logistic support.
15. Day to day repair and maintenance work in the institute Hostels and office buildings as per the complaints received from the users.
16. The buildings shall also be inspected at regular intervals and the necessity of the repairs and replacement shall be recorded and action taken accordingly since these are minor repairs and replacements the material shall be

procured through authorized vendor / local market as per the store procurement procedure. After the materials are procured the same shall be entered in the stock register by store.

17. The work shall be executed in house through the available manpower i.e. electrician who are under the Electrical supervisors. Other than the above type of repairs regular maintenance likes air conditioner (duct, split, water cooler) to be done with coordination of outsourced vendors.

Operational Procedure:

1. Operation of Water Supply System.

- a) 24 Hrs water supplies are to be provided (Drinking Water, Domestic Water and STP water).
 - i. All Academic Blocks
 - ii. All Hostel Blocks
 - iii. All Faculty Flats
 - iv. Mess and Cafeteria
 - v. Other locations in the campus like Security Office etc.
- b) The drinking water supply in all the locations will be through water purifier (RO System) and water cooler.
- c) Water Tanks cleaning schedule:
 - i. Underground tanks – once in year (during summer vacation)
 - ii. Over head drinking water tanks – every 3 months
 - iii. Water Cooler Tank – every 15 days
 - iv. Over head tanks (Domestic & STP) – every 6 months or earlier if required

2. To provide the maintenance services in most effective manner the following input system is being followed:-

(a) For Hostel Blocks-

complaint registers in each Hostel office for

- a) Electrical
- b) Plumbing
- c) Civil / Furniture/Fitment

(b) For Faculty Flats (Including Hostel Faculty Flats, Academic Blocks, Security gates / Security Barracks).

complaint registers in Maint office for

REQUISITIONER DEPTT. HEAD FOR BUEST

- c. The material is issued from the store against exchange of faulty material.
- d. At the end of the shift the status of repairing are entered in respective complaint register.
- e. The analysis is done on day to day basis by Supervisors. For un resolved complaints, appropriate action is initiated at earliest i.e. raising of Purchase Indent for requirement of parts/ materials

Feed Back System:

- a. Fortnightly report on Major Breakdown/Damage with probable reasons, action plans for repairing with approx repairing cost.
This covers mainly: -
 - Breakdown of bore well pumps/ submersible pumps
 - Theft of any related equipment.
 - Break down of compressor of water coolers.
- b. Monthly report on Consumption and Inventory status of material of Maintenance store.
- c. Monthly report on Complaint v/s Repairing Status.
- d. Quarterly material consumption report.

Inventory Held: - The total installed items/inventory under control of maintenance Section is enclosed as under

ASSET DETAILS

<u>Pumps & Motors (Water Lifting)</u>		
Bore-Well pumps (10 to 15 HP)	-	05
Submersible pumps (5 to 15HP)	-	05
 <u>Water Tanks</u>		
Over Head Tanks PVC 2000 Ltr	-	40
Over Head Tanks PVC 5000 Ltr	-	02
Over Head Tanks PVC 1000 Ltr	-	20
Under Ground Tank (30000 Ltr each)	-	01
 <u>Water Treatment Plant</u>		
STP (60K litres per day each)	-	02
STP (40K litres per day each)	-	01
RO Plant (50 LPH)	-	15
 <u>AC Plant</u>		
Ductable (06TR)	-	03
Window/Split AC (1.5/2 TR)	-	40
Fan Control Unit	-	3000
Cassette AC	-	10

	<p><u>Gen Set – 582.5 KVA</u></p> <p>250 KVA - 01</p> <p>125KVA - 02</p> <p>82.5KVA - 01</p> <p><u>Telephone Exchange (EPABX)</u></p> <p>1. Type of Exchange –Matrix EPABX model – 1Units.</p> <p>2. Total subscriber capacity – 100 lines.</p> <p>3. Present working connection-70</p> <p>4. (PRI) line -1-01795-350100 Call center</p>	
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