



<b>Policy Name:</b>	Facility Maintenance Plan
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## FACILITY MAINTENANCE PLAN

### OPERATION OF PHYSICAL PLANT

The operation of the physical plant at all locations is the responsibility of the Facilities Coordinator. This includes chiller, chiller pumps, boiler, boiler pumps, hot water recirculating pumps, main electrical panels, city water main lines, and sewer plumbing. Operations of these areas are checked daily for satisfactory performance. Chilled water and boiler water temperatures are monitored on a continual basis. Individual HVAC package units are controlled by programmable thermostats at each unit. Controlling each unit individually allows for more efficient operation and performance of the complete system and improved redundancy in the event of a breakdown or computer failure of the chiller/boiler system.

### GENERAL MAINTENANCE PROCEDURES

Maintenance personnel are responsible to the Facilities Coordinator and functionally to the campus coordinator. At the Clarksville Campus, maintenance personnel are responsible to the Campus Coordinator and the Facilities Coordinator. In general, maintenance personnel are responsible for the security of the buildings and grounds and for housekeeping and maintenance duties outlined in the following pages.

#### General Housekeeping/Common Areas

The general housekeeping and cleaning details for the common areas such as the main restrooms, hallways, break room, and administrative areas are done by the maintenance personnel. All common restrooms are cleaned and resupplied daily and checked periodically for tidiness and supplies.

#### General Housekeeping/Program Areas

The general housekeeping and cleaning details for the individual program areas are taken care of by the students. This is limited to nominal clean-up, sweeping, mopping, etc., of floor space within the shop and classroom areas. Programs are responsible for placing trash and waste products in containers within the classroom/shop/lab, which is periodically deposited in the public solid waste system container.

## **Grounds**

Care of the grounds surrounding the building is the responsibility of maintenance personnel. Instructors and students are encouraged to see that all waste paper, etc., is disposed of in the proper waste receptacle. Mowing of grass, trimming and other grounds-keeping duties are handled by the maintenance personnel. This work is performed on an "as required" basis to assure a neat and orderly appearance of the grounds.

## **Heating and Air Conditioning**

The routine and preventive maintenance required for heating and cooling equipment will normally be done by maintenance personnel and the HVAC instructors. At times HVAC students are utilized if the project is considered to be of training value. This work will include the routine checking of equipment, preventive maintenance schedule, and other day-to-day maintenance requirements. It is the responsibility of maintenance personnel to ascertain proper heat and water circulation, especially when the outside temperature is below the freezing point.

## **Preventive Maintenance**

It is the responsibility of all school personnel to ensure that the equipment used by them or under their supervision is kept in proper operating condition. It is expected that all equipment be cleaned, lubricated, and otherwise cared for as prescribed in the applicable manufacturer's operation and maintenance manuals.

Maintenance personnel are responsible for preventive maintenance of all heating, ventilating and air conditioning, and other equipment and facilities, including the building structure itself, and all equipment attached thereto.

Instructors or other personnel assigned to an office, classroom, or shop area are responsible for the routine preventive maintenance for all equipment in that shop or area. Any equipment needing maintenance that cannot be done within the shop or class is reported to the Facilities Coordinator.

## **Electrical Maintenance**

Maintenance problems of an electrical nature that cannot be handled by school maintenance personnel will be handled by the appropriate program if it is considered of training value. Work done by the program must be supervised by the instructor and proper lockout/tagout procedures must be used.

## **Painting**

Routine painting and touch-up will be the responsibility of school maintenance personnel. General painting of offices and classrooms is scheduled to be done by an outside source. Normally this would be accomplished approximately every five years. Touch-up and repainting of small areas within a program may be performed by the program or by work-study students.

## **Maintenance and Repair by Outside Sources**

Maintenance and repair that cannot be accomplished by maintenance or other school personnel is procured, as necessary, from outside sources. All work done by outside sources is inspected by the Facilities Coordinator prior to final payment.

## **MOBILE EQUIPMENT**

School owned vehicles such as a truck, tractor, vans, and other gasoline or diesel-powered equipment shall be maintained as a joint effort of the maintenance personnel or appropriate programs. Normally the maintenance personnel will be responsible for the regular preventive maintenance on these vehicles such as fuel, check oil and battery, etc. Other required maintenance shall be referred to the appropriate program instructor.

## **MAINTENANCE OF INSTRUCTIONAL EQUIPMENT**

All maintenance of instructional equipment shall be accomplished by the personnel responsible for that area. In the case of program classrooms/labs/shops, this will be the instructor. In the case of areas that are used by more than one instructor, it shall be the responsibility of the President to assign primary maintenance responsibilities.

Instructors or other personnel responsible for an area shall not permit trainees to attempt maintenance or repairs that are not well within their capabilities. Maintenance that is required outside of training and/or instructor capabilities shall be requested through the Facilities Coordinator. In the event that maintenance cannot be accomplished by other school personnel, arrangements will be made for repair to be accomplished by an outside source.

In the case of leased equipment or equipment that is still under warranty, repair shall not be attempted until the manufacturer or other responsible person is notified. An exception to this may be necessary during emergency situations, such as a heating system failure in extreme cold weather or other emergency conditions.

### **Storage of Equipment and Supplies**

All maintenance equipment and supplies shall be stored in areas designated. Buffer, dust mops, brooms, etc., shall be stored in the maintenance personnel pantry. Shovels, rakes, and such other tools as may be used for grounds maintenance will be stored in the equipment room. Mowers and other gas-powered equipment shall be stored in the campus equipment building. No volatile liquids which are used for fuel shall be stored in any other location than those designated. At no time will any greasy or oily rags be stored in areas designated for maintenance or cleaning equipment and materials. These items will be disposed in accordance with TCAT Dickson Waste Management Policies and Procedures.

## **SUPPLY PROCUREMENT**

It shall be the duty of maintenance personnel to check the inventory of supplies and request necessary maintenance and cleaning items from the purchasing agent during regular purchasing cycles. Sufficient supplies for ordinary maintenance shall be withdrawn and stored in the janitor's closets.

## **MAINTENANCE PERSONNEL**

Included in the implementation of the facility maintenance plan are the services and cooperation of the maintenance employees, administration, staff, instructors, work study students, and the entire student body. Facilities include heating, air conditioning, and ventilating systems, lighting, interior and exterior surfaces, landscaping, sidewalks, drives, and parking areas. In the event the maintenance employees encounter maintenance problems with which they are not able to cope, it is understood that they will report these to the Facilities Coordinator. In such cases the Facilities Coordinator will select one or more available alternatives which include:

1. Assign the problem to the appropriate instructor and/or his class,
2. Procure help from the appropriate school administrator,
3. Obtain help from sources outside the school, and
4. Report the problem as appropriate.

## **PHYSICAL PLANT IMPROVEMENTS**

Physical plant improvements are requested using campus funding or thru a TBR capital budget request depending upon the cost and scope of the project. It is the responsibility of the Facilities Coordinator to submit data, write specifications for bids, and manage projects that are approved with campus funding. The President makes final approval regarding funding before work is started or contractors are hired. Any project that is above \$5,000.00 in cost is sent out for bid to a minimum of three approved vendors or contractors. All projects are inspected for quality and satisfactory completion by the Facilities Coordinator before final payment is made to contractor.

### **I. HEATING EQUIPMENT INSPECTIONS**

#### **A. Central Heating Plant**

1. Regular inspection by Department of Labor, Boiler Inspection Division.
2. Periodic inspections by State of Tennessee/ Division of Risk Management
3. Fall inspections by TCAT maintenance personnel prior to startup

## **II. AIR CONDITIONING EQUIPMENT INSPECTIONS**

### **A. Central Plant**

1. Spring inspection of general condition, loose belts, lubrication of auxiliary equipment.
2. Test controls, thermostats for proper operation.
3. Change filters on air handling units as required; inspect quarterly.
4. Maintenance not within scope of school personnel accomplished by outside agency.
5. Central chiller unit is under a maintenance contract from the manufacturer and is inspected monthly.

## **MAINTENANCE AND UPKEEP OF LEASED SPACE**

The maintenance and upkeep of building and grounds of leased space is done by the hosting agency. Minor repairs or installations may be done by TCAT maintenance personnel with prior approval by hosting agency.

## **SECURITY**

Security of building and grounds is the responsibility of maintenance employees, during hours of operation. The maintenance person on duty shall inspect the building for security, any unauthorized personnel, fire or any other unusual situation or occurrences at the end of each working day. All visitors must register at front desk and have a visitors pass before entering specific program areas or hallways. A chief of police with TBR guides TCAT personnel in areas of security.

The security system monitors entrance doors and can only be armed or disarmed by designated personnel using their own security code. Surveillance cameras are in operation at various areas around the campus and can be monitored at stations within the school or by internet using the proper access codes. Security of the Clarksville Extension Campus is the responsibility of the Campus Coordinator, maintenance personnel and instructors. Each instructor is responsible for locking their respected areas when leaving for the day.

## **EVALUATION TECHNIQUES**

The facilities coordinator works with the safety committee, periodic inspection is made of the entire facility to eliminate safety hazards. Safety hazards detected by the committee are called to the attention of the Facilities Coordinator in the form of a report. More urgent matters receive on-the-spot attention. If maintenance staff cannot correct the safety hazard, the administrative staff then consider ways and means for having the necessary correction made.

The safety committee is made up of key personnel from each campus. It is the duty of this committee to provide and implement a plan of building evacuation in cases of emergency. Evacuation procedure is shown clearly on house floor plan, and instructions for emergency evacuation.

Frequent observations on housekeeping are made by the President. Improvements in housekeeping are attempted through general discussions on the subject at staff meetings and by specific considerations with individual instructors.

Major building repair is done at the discretion of the Board of Regents. Minor repairs and paint touch-up jobs are often decided upon by the local administrator.

Equipment maintenance is carried out by prescribed procedures as follows:

1. Usually the need for the maintenance of instructional equipment is detected by the school's instructors, and reported to the administration.
2. Maintenance needs, other than on instructional equipment, are reported to the administration by any school personnel, including students, who detect these needs.
3. Varying procedures are followed in implementing maintenance of equipment, depending upon the anticipated cost of the repair work, and upon other guidelines and procedures that happen to be in effect at the time.

## **PLAN FOR EVALUATING EFFECTIVENESS OF MAINTENANCE**

1. Instructors will monitor all in-shop repairs involving parts and/or materials.
2. Administration will record all purchases of repair parts and/or materials.
3. Instructors will log all outside repairs required on any equipment regardless of cost.
4. Administration will review these charges to determine procedures for possible modification of the maintenance plan.
5. Administration will tabulate all maintenance costs charged to major equipment annually. Where these individual costs in the aggregate exceed the normal expected costs of repair based upon the projected useful life of the machine, consideration will be given to phasing out such equipment.
6. Resource personnel will be utilized in assessing effectiveness of the maintenance program.
7. Final decisions concerning maintenance procedures must ultimately rest with judgments reached jointly by administration and instructors in terms of resources, personnel, and funds available to the school.

## **SAFETY PROGRAM**

The Tennessee Board of Regents has implemented the state's safety program for area schools in several ways:

1. Delegation of responsibility for the school's safety program to the President of each area school.
2. By including the safety training requirements in the in-service training sessions for all school personnel.
3. By the publication of memoranda on safety.
4. By distribution of safety material and pamphlets.
5. By requiring safety reports on accidents which occur in the school.
6. By making safety clothing and safety glasses available, where required, to trainees.
7. By including safety inspections in the evaluations of area schools.
8. By including safety features in the building plans, facilities, equipment, and supplies issued.
9. By requiring safety courses for administrators, instructors, and support personnel.
10. By requiring all courses taught in the area schools to include safety training as part of the curriculum.
11. By follow-up and inspection by the Tennessee Board of Regents.

The President's responsibility for the overall safety program in the school includes, but is not limited to the following:

1. Planning, implementation, follow-up, and inspection of all directed safety rules.
2. Safety in the shops, classrooms, and all the school's physical facilities.
3. Review of accident reports to eliminate cause of accident.
4. Review of instructors' curricula to be sure safety is being taught.
5. Inspection of facilities, shops, and classrooms for hazards, compliance with safety directives, and that everyone is following the safety rules.
6. Review of safety inspection reports and follow-up on elimination of all reported hazards.
7. That area school in-service training includes safety training.
8. In staff meetings, review and discuss safety directives, accident prevention, and shop safety.
9. Carrying out the policies of the Tennessee Board of Regents for operation of the TCAT System with regard to safety:

- a. Routine maintenance of buildings, grounds, and equipment shall be performed as needed.
  - b. Good housekeeping practices shall be followed at all times. Tools, equipment, etc., shall be kept in appropriate places and shall not be left on benches, machines, and floors when not in use.
  - c. The use of shop laboratories and equipment shall be used only for purposes in carrying out the instructional program of the school.
  - d. All instructors shall be in the classroom or shop prior to the time students arrive for class and under no condition will a class be left without supervision.
  - e. Safety instruction shall be given and be an integral part of the total instructional program.
10. Supervision for requisitioning and/or purchase of
- a. All operating supplies.
  - b. All equipment including safety clothing and glasses.
  - c. Repair or replacement of parts for school equipment.
11. Supervision of custodial personnel.
- a. Assignment of duties
  - b. Training
  - c. Reports
12. Instruction to insure that
- a. All electrical switch panels are safeguarded.
  - b. Heating and air conditioning work properly.
  - c. Hazardous area signs are located properly.
  - d. Fire extinguishers are properly located.
  - e. Traffic flow signs are posted.
  - f. Any condition that is considered a safety hazard and cannot be corrected by maintenance personnel is reported to the President.

Instructors:

- 1. Responsible for shop and classroom safety.
- 2. Development of curriculum containing safety training.
- 3. Instruct in safety to develop the right attitude of safety awareness and observance on the part of trainees.
- 4. Maintain good housekeeping.
- 5. See that all trainees learn the safe way to use tools and equipment.
- 6. Continual observance of trainees and correct on the spot, any deficiencies.
- 7. Lead by example.