

FREDERICK COUNTY PUBLIC SCHOOLS	Reg. No. 200-18
Subject: ENERGY CONSERVATION FOR FCPS BUILDINGS	Date of Issue: 6/10/09
Preparing Office: Office of the Superintendent	Effective Date: 7/1/09

I. Policy 204

II. Procedures

- A. This regulation establishes procedures for the use of energy in FCPS facilities to reduce energy consumption, encourage natural resource conservation, and reduce energy-related costs to the school system.
- B. The Maintenance and Operations Department will prepare and administer an energy conservation program to provide employees with strategies to reduce electricity and other energy use. This program will include:
1. Coordination of action plans with representatives from all FCPS facilities.
 2. Preparation of educational and training material for staff to use at their schools or offices.
 3. Performance of annual energy audits of all FCPS facilities.
 4. Preparation of regular reports for all FCPS facilities regarding energy use.
 5. Preparation of plans to upgrade building systems and equipment to improve energy performance.
 6. Performance of ongoing maintenance of building systems and equipment to keep them in efficient working condition.
- C. Responsibilities of Principals and Building Administrators
1. Assist and support the Maintenance and Operations Department in the implementation of energy conservation programs and practices at their facility.
 2. Appoint a staff member to serve as a point-of-contact with the Maintenance and Operations staff and the coordinator of energy conservation activities at their facility.
 3. Support FCPS energy conservation regulations at their facility, including, as necessary, with outside user groups.
 4. Address recommendations for energy conservation measures that are compiled through the energy audit at their facility.

D. Responsibilities of All Employees

1. Support FCPS and school-based efforts to reduce and conserve energy use.
2. Encourage and model energy conservation practices for students.
3. Provide recommendations for new approaches to energy conservation.

E. Lights

1. Lights shall be turned off in all unoccupied classrooms during the day.
2. Lights in all offices, classrooms and other support areas, except as needed for security, shall be turned off at the end of the instructional day unless cleaning, maintenance or other activity is taking place in that room.
3. Lights on building exteriors and in parking lots, not needed for security, as well as lighted signs inside buildings will be placed on timers to be turned off no later than 11 p.m.

F. Personal Appliances

1. Coffee makers, mini-refrigerators, toaster ovens, microwave ovens, hot plates, or other electric food preparation appliances are not permitted in individual classrooms or offices. Principals or central office building administrators may approve such appliances to be available in rooms or work areas that are considered to be break rooms or common meeting areas for multiple employees.
2. Personal space heaters, air purifiers, and dehumidifiers are not permitted in individual classes or offices. Building administrators may make exceptions for documented student/staff health conditions, instructional requirements or to address situations where temperatures during the majority of the day do not fall within the range found in Section I. of this regulation. Records of these exceptions shall be maintained in the school office with copies provided to the energy/recycling coordinator using the Energy Conservation Regulation Waiver. (Exhibit 1)

G. Vending Machines

1. All vending machines, whether owned by FCPS or by private vendors shall use energy-saving technology in order to reduce energy consumption during off-peak hours.
2. Except as required by existing contracts, vending machines will not have internal lights used for the sole purpose of advertising. Lighting used to display vending products is permitted. All other lights must be safely disabled to reduce energy consumption.
3. Unless used regularly, all vending machines and refrigerators must be disconnected during the summer, except five (5) days before the start and five (5) days after the close of the school year.

H. Technology and Office Equipment

1. All computers, monitors, and peripherals shall follow the procedures defined by the Tech Services Department's Energy Savings Guidelines. (Exhibit 2)
2. All copiers and other office equipment should be turned off or on power-save mode at the end of the workday.

I. Temperature Ranges

1. Cooling

Thermostat settings during occupied periods are to be 70-74°F. During unoccupied periods, thermostats are to be set to 80 °F. Exceptions must be approved by the Cluster Maintenance Program manager, who in coordination with the building administrator will devise a plan to address humidity issues if they arise.

2. Heating

Thermostat settings during occupied periods are to be 68-72°F. During unoccupied periods, thermostats are to be set to 60 °F. Exceptions must be approved by the Cluster Maintenance Program manager.

3. Occupied Temperature Settings

Occupied temperature settings will be maintained for each school facility until 5 p.m., Monday through Friday, to allow for after-school club meetings, faculty meetings, etc. After this time and on weekends, the HVAC system will be in the unoccupied mode. If an event is scheduled outside of the NORMAL occupied time period, school personnel may maintain the occupied settings for the time frame the event is occurring.

4. Air Conditioning

During the summer, only those sections of the building occupied by students or staff will be air conditioned.

5. System Switchover

In the spring and fall, building heating and cooling systems must be reset to respond to changing temperatures and humidity levels. In many buildings, this involves shutting down some and starting up other equipment. Each FCPS building will have individual procedures that the Maintenance Department will follow during this time. Maintenance performs the changeover on the basis of established priorities: a) to provide comfort to students, b) to maintain required temperatures to protect equipment, and c) to serve the greatest number of individuals and activities.

The wide swings in temperature during the fall and spring and the difficulty in switching between heating and cooling make this regulation necessary. Special problems or hardships with this regulation should be addressed to the Cluster Maintenance Program manager.

6. Heating to Cooling

Air conditioning may not begin until May 1 unless there are extreme temperatures or building limitations that make it mandatory. Individual schools may request an exception to this by issuing a work order to the Cluster Maintenance Program manager.

7. Cooling to Heating

Heating may not begin until October 15 unless there are extreme temperatures or building limitations that make it mandatory. Individual schools may request an exception to this by issuing a work order to the Cluster Maintenance Program manager.

J. New Construction

Major school construction projects shall comply with the State of Maryland's high performance school regulations. All new construction shall be designed to reduce energy consumption and encourage resource conservation.

K. Annual Report

The Maintenance and Operations Department will provide an annual report to the superintendent listing all energy conservation activities that occurred during the year. The report will also include energy conservation plans for the coming year as well as energy costs for all buildings and the system as a whole.

Approved:

original signed by

Linda D. Burgee
Superintendent

Energy Conservation Regulation Waiver

Date:

School/Office Building:

Description of Waiver Approved:

Duration of Waiver:

Reason for Approval:

Location in Building:

Signed: _____
Building Administrator

***A copy of the above form shall be kept on file at the school and a copy sent to the
Energy and Recycling Coordinator, FCPS Facilities Services Division,
7446 Hayward Road, Frederick, MD.***

Tech Services Department

Energy Savings Guidelines

Technology and Office Equipment

Technology and office equipment can use large amounts of energy over a period of time. So much so that it is important to minimize this usage outside of normal business hours. Many devices have the ability to automatically shift to a power saver mode which does help, but Technology Services also has some recommendations and can assist in minimizing energy usage. Below are the various areas that Technology Services provides for energy conservation through automatic or suggested means.

Computers *(This includes the computer and monitor)*

Through a centralized management system Technology Services automatically powers off all non-essential computers during non-business hours. It has been determined that by powering off all non-essential computers, Technology Services estimates a total annual FCPS costs savings of approximately \$1,000,000. Computers used by staff for VPN are exempt from this automatic power down.

In addition, during normal business hours, computer monitors are configured to enter a standby mode after 20 minutes of inactivity further reducing energy requirements.

Printers

Most of the newer HP and Xerox laser printers have an energy savings mode built-in to them. They will automatically enter an energy savings mode after a short period of time. In this mode, energy usage is reduced by almost 90%.

- Network printers should not be turned off. Schools should contact their TS2 when shutting them down for the summer.
- Stand-alone ink jet printers with separate power supplies will consume energy when the printer is off. These power supplies should be placed on power strips and turned off or simply unplugged when not in use. Note: The exception should be the older inkjet printers by Epson. These will run print head cleaning utilities when they are turned off and on which will consume a significant amount of ink. These should only be turned off if they will not be used for more than a week.
- Xerox Phaser 850 & 860 solid ink printers should also not be shut down for periods of time less than 3 weeks. These printers have an energy savings mode. In addition, they consume a considerable amount of ink each time they are started to clean the print heads. Therefore, the cost for wasted ink would outweigh the energy savings.

Tech Services Department's Energy Savings Guidelines

Technology and Office Equipment

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Copiers

Most copiers also include an energy saving mode that is enabled by default. They automatically enter an energy savings mode after a short period of time. In this mode, energy usage is reduced dramatically with potential savings of almost 90%.

- Copiers with networking capability enabled should be treated like a network printer and not turned off
- Copiers that operate only as a copier should be turned off if they will not be used for an extended period of time.

Exceptions to these guidelines

However, there are a few devices that should not be turned off or shutdown due to issues of availability, performance or cost inefficiencies. They are:

- Computer Servers which should remain on at all times, unless given specific information to the contrary from Technology Services.
- Computers running specific applications that are required to operate outside of regular hours should also be left running. These include management computers for HVAC/environmental systems and as noted earlier, computers used for VPN access.

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