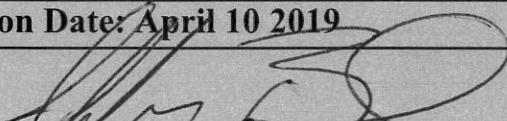


Jackson Public Schools	District Energy Guidelines
Revision: D	Revision Date: April 10 2019
Approved by: Superintendent	

Scope:

These guidelines are the third revision of the Jackson Public Schools Energy Guidelines and are to remain in effect until further revisions are made. By direction of the Superintendent and the Director of District Operations, the Assistant Director of District Operations is responsible for implementation and to monitor district-wide participation.

In accordance with the Energy Policy, adopted by the Board of Education on September 5, 2000, the principal/building administrator will be held responsible for the total energy usage of his/her building. The teacher in each classroom will be responsible for implementing the guidelines during class time.

The Energy Guidelines are to be complied with, to the maximum extent possible, for all energy management operations of school property. Special requirements that necessitate deviation from the guidelines are only authorized with the prior knowledge and approval from the Facilities Department Administrators or Superintendent.

These guidelines will be used as the guiding reference to develop specific building Energy Management Procedures.

Contents:

1. This directive is divided into seven sections for establishing Energy Management Guidelines:

- Section 1. Glossary of Terms
- Section 2. General Guidelines
- Section 3. Heating Equipment Guidelines
- Section 4. Air-Conditioning Equipment Guidelines
- Section 5. Lighting Equipment Guidelines
- Section 6. Auxiliary Equipment Guidelines
- Section 7. Water Guidelines
- Section 8. Energy Guidelines for Construction, Renovation, and Replacement

Section 1: Glossary of Terms

Building Administrator-the principal or the person responsible for the administrative or financial operation of a Jackson Public School building or building complex.

Cooling Season-time when air conditioning is providing cooled air to the building.

Heating Season-time when a boiler, furnace or any type of heater is providing heated air to the building.

Occupied-defined to be the time when educational and/or educational business activities are being conducted in a district building. "Unoccupied" is any other time than those defined as "occupied".

Setback-a set of procedures designed to introduce as little energy into the building during a time of unoccupancy; yet do no damage to the building and still be able to recover guideline temperatures by such time when the building becomes occupied.

BAS-Building Automation System.

Section 2: General Guidelines

- A. These Energy Guidelines are not intended to be all-inclusive. Energy saving measures should always be undertaken whenever and wherever possible. All school employees and students are obligated to save taxpayer's dollars at all times without specific direction to do so. Every district building occupant is counted upon to be an "energy saver" as well as an "energy consumer" and every student and employee will be expected to give appropriate attention to measures that will reduce energy consumption.
- B. The Energy Management Program is obligated to provide each student with a comfortable, well-illuminated classroom environment that is conducive to the educational process during the normal school day. Although some energy guidelines are specifically intended for operations during a building's occupied hours, most guidelines are designed to reduce the utilities waste during unoccupied hours. Safety and security of school property will always be paramount and shall be judiciously considered before implementing any new energy strategies or procedures.
- C. Energy management of each site/school campus will be made part of each principal/site administrator's evaluation.
- D. The building lead custodian will be responsible for the complete and total shutdown of the facility during unoccupied hours.
- E. Periodic walk-through audits will be performed to ensure compliance with District Energy Guidelines. The building's administrator is responsible to ensure that proposed changes to these procedures are communicated to the Facilities Department.
- F. The Director of District Operations will provide each building's administrator information reflecting the monthly energy consumption for his/her building.
- G. All temperatures in this document are expressed in degrees Fahrenheit.
- H. Non-essential electrical equipment that may be conveniently turned off when the building is unoccupied is to be included in each building's shutdown list.

- I. To provide a better thermo barrier, the window shades will be lowered/closed at night.
- J. All override switches are to remain in their normal positions and if overridden for emergency the Facilities Department should be notified.
- K. On snow days the buildings will be set to the unoccupied mode except for office areas being used. Please notify the Facilities Department on that particular snow day if your school office will be occupied.

Section 3: Heating Guidelines

- A. In order to provide an environment conducive to the educational process, the classroom temperature is to be maintained between 68 and 72 degrees during the heating season. When the building is unoccupied, setback procedures are to be followed to the greatest extent possible.
- B. Thermostatic controls will be set to maintain no higher than 72 degrees in classrooms and offices and 68 degrees in hallways.
- C. Individual classrooms, offices and vestibules receiving heated air will have all the doors closed, whenever possible. Unoccupied vestibules and stairwells should not be heated unless temperatures cannot be maintained above 64 degrees.
- D. In those buildings with individual classroom controls, which can be accessed by the custodial staff, the staff will be responsible for setting the thermostat controls at the beginning of the day.
- E. In those classrooms with individual thermostat controls, the teacher will be responsible for setting the thermostat on 55 degrees as he/she leaves the room at the end of each day. The principal or his/her designee will be responsible for setting thermostat controls in the rest rooms, offices and other heated areas at the end of each day.
- F. During the heating season, all exterior windows are to remain closed. If a space is unable to maintain a temperature of 75 degrees or below, with the thermostat controls set to a minimum temperature, doors should be opened to dissipate the heat. If still unable to maintain 75 degrees or below, the custodian and the Facilities Department are to be notified. Anytime windows must be opened during the heating season to maintain a temperature below 75 degrees, the Facilities Department should be notified.
- G. The Director of District Operations must authorize space heaters used for supplemental heat. The building's heating plant is expected to deliver the heat to all areas of the building in order to maintain guideline temperatures.

- H. During holiday shutdown, the building temperature controls will be set in the unoccupied mode. The offices that will have staff working should provide a schedule of times being occupied. It will be the responsibility of the custodians to contact the Facilities Department before the shutdown period to set up their cleaning schedule. This cleaning schedule should be detailed according to the area they will be working in per day.

Section 4: Air conditioning Guidelines

- A. In order to provide an environment conducive to the educational process, the classroom temperature should be maintained between 74 -78 degrees during the cooling season. If able, unoccupied areas shall be isolated from occupied areas requiring air conditioning. The building administrator is to ensure all windows and doors are closed when the air conditioning is operating. Under no circumstances will the district buildings operate air conditioning equipment when the outside temperature is less than 65 degrees unless approved for special applications.
- B. The following guidelines are to be used to set air conditioning when the building is occupied:
1. In rooms with windows and ceiling fans and individual classroom controls: Refrain from turning the air conditioning equipment on until the outside temperature exceeds 70 degrees. Temperature control should be achieved by the use of ceiling fans and window adjustments.
 2. In rooms with windows, but no ceiling fans: Refrain from turning the air conditioning equipment on until the outside temperature exceeds 70 degrees. Temperature control should be achieved by the use of window adjustments below 75 degrees outside air temperature.
 3. Rooms with no windows and no ceiling fans are only to use air conditioning when room temperature exceeds 75 degrees.
 4. In all cases above, the principal will be responsible for devising a system of notifying the teachers when the air conditioning may be turned on.
- C. Where installed, the building automation system (BAS) will be set as to not allow the cooling equipment to operate below 65 degrees outside air temperature.
- D. When air conditioning is expected to be used, the start time for air conditioning equipment should be set as late as possible while allowing time to cool the building to guidelines standards by the beginning of the school day.
- E. Individual classrooms and offices shall close all doors when air conditioning equipment is in operation.

- F. When air conditioning is used, refrain from turning on unnecessary lights, computer equipment (especially printers), and all other non-essential electrical equipment.
- G. Air conditioning equipment should be turned off at the approximate time the students leave school. The temperature of the classrooms should be maintained for a sufficient time to provide comfort during the period the faculty remains in the classroom.
- H. Under no circumstances will air conditioning be utilized in classrooms during the summer months unless the classrooms are being used for summer school or year round school. Custodians will be expected to open doors and windows to provide necessary ventilation, whenever and wherever possible.
- I. A recommended method to reduce room temperature is to utilize blinds, curtains, shades, and any other opaque materials to block direct sunlight from reaching the floor. Adjusting Venetian blind slats so as to introduce the maximum indirect sunlight without permitting the direct sunlight to reach the floor will furnish a naturally lit room, and significantly reduce room temperature.

Section 5: Lighting Equipment Guidelines

- A. All unnecessary lighting in unoccupied areas will be turned off. All unnecessary interior lights will be turned off when students leave school. Custodians will turn on lights only in the areas they are working. All common area (hallways, gymnasium, etc.) lights should be turned on just prior to the building being occupied.
- B. Lights in classrooms should not be turned on until needed. Teachers shall turn on classroom lights at the beginning of class and ensure that lights are turned off whenever leaving the classroom unoccupied.
- C. Lights in gymnasiums, cafeteria, auditoriums, libraries, locker rooms, natatoriums (swimming pools) or other large common areas, when not occupied, will be guided by the following:

Type Lights	Must Be Turned Off Whenever*	Recovery Time
Fluorescent	Anytime unoccupied	< one second
Incandescent	Anytime unoccupied	none
LED	Anytime unoccupied	none

* Note: Guidelines listed are upper limits of unoccupancy. If convenient, it is recommended to turn off all lights whenever the gymnasium is unoccupied for more than a few minutes.

- D. Security lights/exterior lights are to be turned off during daylight hours. As appropriate, the building custodians are responsible to change time clocks for seasonal daylight savings time changeovers to ensure exterior lighting is not on during daytime hours.
- E. Wherever practical, incandescent lights should be replaced with compact fluorescent lights, or other suitable type lighting. Compact fluorescent lights are particularly cost-effective in fixtures that are essentially left on continuously (fire exit signs, security areas, etc.)
- F. All hallway lighting with exterior glass should be turned off at daylight on sunny to partly cloudy days.

Section 6: Auxiliary Equipment Guidelines

- A. Exhaust fans in all restrooms shall be turned off whenever the building is unoccupied. Consistent with existing air quality directives, air-handlers and all fans shall be turned off when the building is unoccupied.
- B. Copy machines, laminating equipment, coffee machines, computers (except network servers) and other office machines should be turned off by the office staff each night.
- C. All computers (except network servers) and computer equipment should be turned off each day at the end of the last class.
- D. Display case lighting on all vending machines is to be disconnected by the vendor.
- E. Due to embedded electrical demand charges, avoid the use of kilns during times when the building is under a high electrical load. If safety permits, it is recommended that kilns be fired only when classes are not in session. Under no circumstances should kilns be fired when the building is using air conditioning, or between the hours of 11 a.m. and 7 p.m.
- F. Swimming Pool Operations:
 - 1. Swimming pool temperatures are to be maintained between 78 to 81 degrees. Natatorium air temperature is to be maintained between 80 and 85 degrees.
 - 2. Swimming pool lights are to be turned off whenever the pool is unoccupied.

- G. All appliances will not be allowed in instructional areas unless jointly approved by the principal and the Director of District Operations. Unauthorized appliances will be removed from the District.

Section 7: Water Guidelines

- A. Once identified, all water leaks should be immediately repaired by the building staff or immediately reported to the Facilities Department.
- B. All lawn and athletic field watering schedules are to be approved by the Facilities Department. Lawn watering is to be avoided during the hours of 9 a.m. and 5 p.m. and/or during high winds.
- C. Domestic hot water heaters should be set to deliver water to all building faucets at a minimum of 110 degrees, but no warmer than 120 degrees. Exception: Hot water heaters for dishwashers.

Section 8: Energy Guidelines for Construction, Renovation, and Replacement

- A. Outside security lights and lighted signs shall be controlled by electronic 7-day programmable time clocks with manual override and photo eye. If possible, the parking lot lights shall be separate from the building security lights.
- B. Water heaters shall be controlled by electronic 7-day programmable time clocks with manual override or the BAS.
- C. Thermostats that control gas fired heaters shall be of the electronic 7 individual day programmable types or the BAS.
- D. Switching of building hallway lights need to be staggered to reduce illumination during low occupancies.

Distribution:

A copy of these guidelines should be disseminated to the widest distribution possible within school buildings, (i.e., all bulletin boards, teacher lounges, classrooms, custodians spaces, etc.)