

St. Johns County School District

Energy Conservation and Building Management Guidelines

Responsibilities:

- Every person is expected to be an “energy saver” as well as an “energy consumer”.
- The teacher is responsible for implementing the guidelines during the time that he/she is present in the classroom.
- The custodian is responsible for control of common areas, i.e. halls, cafeteria, etc.
- The School-Based Maintenance Manager is responsible for verification of the nighttime shutdown.
- The principal is responsible for the total energy usage of his/her building.
- The Energy Manager performs routine audits of all facilities and communicates the audit results to the appropriate personnel.
- The Energy Manager is responsible for overseeing that adjustments are made to the District’s EMS, including temperature settings and run times for HVAC and other controlled equipment.
- The Energy Manager provides regular reports to Principals and School-Based Maintenance Manager indicating performance with regards to energy savings.
- The district is committed to and responsible for maintenance of the learning environment.
- To complement the district’s energy management program, the district shall develop and implement a preventive maintenance and monitoring plan for its facilities and systems, including HVAC, building envelope, and moisture management.

General:

1. Classroom doors shall remain closed when HVAC is operating. Ensure doors between conditioned space and non-conditioned space remain closed at all times (i.e. between hallways and gym area).
2. Proper and thorough utilization of data loggers will be initiated and maintained to monitor relative humidity, temperature, and light levels throughout the district’s buildings to ensure compliance with district guidelines.
3. All exhaust fans should be turned off during unoccupied times daily.
4. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machine should remain on.
5. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.
6. All capable PC’s should be programmed for the “energy saver” mode using the power management feature. If network constraints restrict this for the PC, ensure the monitor “sleeps” after 10-minutes of inactivity.

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Heating Equipment

1. Occupied temperature settings shall NOT be above 72°F.
2. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a 60°F setting during extreme weather.
3. The unoccupied time shall begin when the students leave an area.
4. During the spring and fall when there is no threat of freezing, all steam and forced air heating systems should be switched off during unoccupied times. Hot water heating systems should be switched off using the appropriate loop pumps.
5. Ensure all domestic hot water systems are set no higher than 120°F or 140° for cafeteria service (with dishwasher booster).
6. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times.
7. For heat pumps, ensure a 6°F dead-band between heating and cooling modes.
8. Heating oil and propane (if applicable) levels should be physically measured and recorded by “sticking the tanks” at least on the following intervals: 1) recurring scheduled monthly date 2) immediately before new delivery 3) immediately after delivery.

Lighting

7. All unnecessary lighting in unoccupied areas will be turned **off**. Teachers should make certain that lights are turned off when leaving the classroom when empty. Utilize natural lighting where appropriate.
8. All outside lighting shall be **off** during daylight hours.
9. Gym lights should not be left on unless the gym is being utilized.
10. All lights will be turned **off** when students and teachers leave school. Custodians will turn on lights only in the areas in which they are working.
11. Refrain from turning lights on unless definitely needed. Remember that lights not only consume electricity, but also give off heat that places an additional load on the air conditioning equipment and thereby increases the use of electricity necessary to cool the room.

Water

1. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately.
2. Grounds watering should only be done between 4am-10am. Do not water during the heat of the day, typically between 10am-8pm. Follow St. Johns River Water Management District guidelines.
3. When spray irrigating, ensure the water does not directly hit the building.
4. Ensure water sub-meters are installed on irrigation and cooling tower supply lines to eliminate sewer charges.

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Cooling Season Occupied Set Points¹: 73°F – 77°F

Unoccupied Set Point: 85°F

Heating Season Occupied Set Points¹: 68°F – 72°F

Unoccupied Set Point: 55°F

¹Set points are in accordance with ASHRAE 55 “Thermal Conditions for Human Occupancy”

Air Conditioning Equipment

1. Occupied temperature settings shall NOT be set below 73°F.
2. During unoccupied times, the air conditioning equipment shall be turned off or set to the unoccupied set point. The unoccupied period begins when the students leave the area at the end of the school day. It is anticipated that the temperature of the building will be maintained long enough to afford comfort for the period any staff member remains in the building after the students have left.
3. Air conditioning start times may be adjusted (depending on weather) to ensure classroom comfort when school begins.
4. Ensure outside air dampers are closed during unoccupied times.
5. Relative humidity levels shall not exceed 60% for any 24 hour period.
6. Air conditioning should not be utilized in classrooms during the summer months unless the classrooms are being used for summer school or year-round school. Air conditioning may be used by exception only or in those schools that are involved in team-cleaning.
7. In all areas which have evaporative coolers such as shops, kitchens and gymnasiums, the doors leading to halls which have air conditioned classrooms or dining areas should be kept closed as much as possible.
8. Where cross-ventilation is available during periods of mild weather, shut down HVAC equipment and adjust temperature with windows and doors. Cross-ventilation is defined as having windows and/or doors to the outside on each side of the room.
9. Ensure dry food storage areas are maintained within code requirements. Typically, this is 70°F temperature and 35%-60% Relative Humidity. Utilize loggers to verify.