

Regulation ECF

Las Cruces Public Schools

Related Entries: ECF

Responsible Office: Associate Superintendent for Operations

ENERGY AND WATER CONSERVATION

I. PURPOSE

To implement LCPS Board of Education Policy ECF: Energy and Water Conservation, with regard to district-wide energy and water use and conservation.

II. DEFINITIONS

1. *EES* means Energy Education Specialist.
2. *EMS* means Energy Management System.
3. *HVAC* means Heating, Ventilation and Air-Conditioning.
4. *Nighttime Shutdown or Setback* means ensuring that no HVAC units are running after a certain time of night, and that the building temperature is at a point set by the school district's HVAC computer control system so that HVAC units will be automatically shut down during unoccupied times).

III. POSITION

ENERGY CONSERVATION GUIDELINES

The following guidelines are set forth to establish standard practices to optimize the learning and working environment as well as to avoid unnecessary utility expenditures.

A. Responsibilities

1. Every school district employee shall be an "energy saver" as well as an "energy consumer."
2. Every school district employee shall be responsible for implementing LCPS Policy and Regulation ECF: Energy and Water Conservation, during the time that he/she is present in the classroom or office.
3. The building custodian(s) shall be responsible for implementing LCPS Policy and Regulation ECF: Energy and Water Conservation in common areas, i.e. halls, cafeteria, etc.
4. Since the building custodian is typically the last person to leave a school building in the evening, he/she is responsible for verification of the nighttime shutdown or setback.
5. The building administrator shall be responsible for the total energy usage of his/her building.
6. The LCPS EES shall perform routine audits of all facilities and communicate audit results to the appropriate school district personnel.

7. The EES and EMS shall be responsible for directly making adjustments to the school district's EMS, including temperature settings and run times for HVAC and other controlled equipment.
8. The EES shall provide regular reports to building administrators indicating equipment performance with regard to energy savings.
9. The school district is committed to and responsible for maintenance of the learning environment, which assists all employees (and, as appropriate, students) in learning about and implementing energy saving guidelines in compliance with LCPS Policy and Regulation ECF: Energy and Water Conservation.
10. To complement the school district's energy management program, the school district shall develop and implement a preventive maintenance and monitoring plan for all facilities and systems, including HVAC, building envelope (i.e., the physical structure(s) of buildings, including walls, hallways, roofs, windows, etc.) and moisture management.

B. General Guidelines

1. School classroom doors and windows shall remain closed when HVAC is operating. Staff shall ensure that doors between conditioned space and non-conditioned space remain closed at all times (i.e. between hallways and gymnasium).
2. Data loggers (small, portable electronic devices that collect real-time data about the space, including room temperature, humidity and light intensity) shall be properly and thoroughly used to monitor relative humidity and temperature and light levels throughout the school district's buildings to ensure compliance with LCPS Policy and Regulation ECF: Energy and Water Conservation.
3. All exhaust fans shall be turned off during unoccupied times.
4. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines should remain on.
5. All computers shall be turned off each night. This includes the monitor, local printer and speakers.
6. All capable computers should be programmed for the "energy saver" mode, using the power management feature. If network constraints restrict this, ensure the monitor "sleeps" after 10 minutes of inactivity.

Cooling Season Occupied Set Points¹: 74°F–78°F
Unoccupied Set Point: 85°F
Heating Season Occupied Set Points¹: 68°F-72°F
Unoccupied Set Point: 55°F

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

C. Guidelines for Air Conditioning

1. Occupied temperature settings shall *NOT be set below 74°F*.
2. During unoccupied times, the school building HVAC equipment shall be **turned off**. The unoccupied period begins when students leave the area at the end of the school day. It is anticipated that the temperature of the classroom will be maintained long enough to afford comfort for the period during which staff remains in the classroom after students have left.
3. Air conditioning start times may be adjusted (depending on weather) to ensure classroom comfort when instruction begins.
4. Ceiling fans shall be operated as appropriate in all areas that have them.
5. Relative humidity levels shall not exceed 60% for any 24-hour period.
6. HVAC shall not be utilized in facilities during the summer months unless the facilities are being used for summer school, year-round school or administration. HVAC systems shall remain operational during normal business hours for those buildings which house 260-day employees. HVAC may be used in those facilities/sections of facilities involved in team cleaning.
7. In all areas which have evaporative coolers, such as shops, kitchens and gymnasiums, the doors leading to hallways which have air-conditioned classrooms or dining areas should be kept closed as much as possible.
8. Dry food storage areas shall be maintained within code requirements. Typically, this is 55°F-75°F temperature and 35%-60% relative humidity. Data loggers shall be used for verification

D. Guidelines for Heating

1. Occupied temperature settings shall NOT be set above 72°F.
2. The unoccupied temperature setting shall be 55°F. This may be adjusted to a 60°F setting during extreme weather.
3. The unoccupied time shall begin when students leave an area.
4. During the spring and fall when there is no threat of freezing, all hot-water boiler and forced-air heating systems shall be switched off during unoccupied times.
5. No domestic hot water system shall be set higher than 120°F or 140°F for cafeteria service (with dishwasher booster).
6. For heat pumps, there shall be a 6°F dead-band (temperature range in which either heating or cooling cannot be enabled while the other is operating) between heating and cooling modes.

E. Guidelines for Lighting

1. All unnecessary lighting in unoccupied areas shall be turned off. Staff shall make certain that lights are turned off when leaving classrooms or offices when empty, and shall utilize natural lighting where and when appropriate.
2. All outside lighting shall be turned off during daylight hours.
3. School gymnasium lights shall not be left on unless the gym is being utilized.
4. All lights shall be turned off when students and staff leave for the day. Custodians shall turn on lights only in the areas in which they are working.
5. Refrain from turning lights on unless definitely needed. (Remember that lights not only consume electricity, but also give off heat, which places an additional load on HVAC equipment and thereby increases the use of electricity necessary to cool the room/area.)

F. Guidelines for Water

1. Appropriate school district staff shall ensure that all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately.
2. Watering of school district grounds should only be done between 6:00 p.m.-10:00 a.m. In particular, no grounds shall be watered during the heat of the day, typically 10:00 a.m.-6:00 p.m.
3. When spray irrigating, appropriate school district staff will ensure that the water does not directly hit the building.



Associate Superintendent for Operations

December 6, 2012

Date

History: New regulation, created 12.06.12

Legal reference: