

CODIFICATION REFERENCE NUMBER: 7460

DATE: February 1, 2011

ENERGY CONSERVATION

Aware of its commitment to the conservation of natural as well as fiscal resources, the administration proposes the following procedures to manage the conservation of energy.

Exterior Lighting Timing Schedules

All locations within the district will follow and adhere to the procedures outlined below. However, it is understood that this is a living document and therefore it is subject to change based on the individual needs of the districts buildings, safety concerns, and desire for increased energy conservation.

1. Parking lot lighting and exterior building lights:

- All parking lot lighting will have a seven-day programmable timer and the schedule will be as follows:
- **Elementary Schools; Cedar Hill, Oak Street, Liberty Corner and Mount Prospect:**
 - Monday thru Friday: During the daytime hours, the lights will come on at 5:30 AM and turn off at 7 AM. During the evening hours the lights will come on 30 minutes before dusk and will turn off at 7:30 PM
 - Saturday and Sundays: The parking lot lights will not come on at all unless there is a scheduled event
- **William Annin Middle School:**
 - Monday thru Friday: During the daytime hours, the lights will come on at 5:30 AM and turn off at 7 AM. During the evening hours the lights will come on 30 minutes before dusk and will turn off at 10:00 PM
 - Saturday and Sundays: The parking lot lights will not come on at all unless there is a scheduled event
- **Ridge High School:**
 - Monday thru Friday: During the day hours, the lights will come on at 5:30 AM and turn off at 7 AM. During the evening hours the lights will come on 30 minutes before dusk and will turn off at 10:00 PM
 - Saturday and Sundays: The parking lot lights will not come on at all unless there is a scheduled event

Building exterior (perimeter) lights will be programmed to come on at dusk and off at 11 PM Monday thru Friday.

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Lighting

Much of what goes on inside the building as it relates to lighting will require total commitment not only from the custodial/maintenance staff but from the entire district staff.

Lighting will be turned off in any area that is unoccupied, except for corridors, stairwells and exits as required by code, or where necessary to maintain an appropriate level of safety.

- Partial lighting will be used where available when only a portion of an area is occupied.
- Natural sunlight will be used in place of electrical light when available, depending on area use and specifications.

Custodians will turn lights on only in the immediate area (i.e. classroom, office) area in which they are currently working.

Lighting Levels

Lighting levels will be maintained in accordance with the Illuminating Engineering Society (IES) of North America standards or as per state QSAC standards require:

<u>Task area</u>	<u>Foot-candles*</u>
Corridors, stairways, restrooms	10-20
Storage rooms	10-50
Conference rooms	20-50
General offices	30-50
Classrooms	30-50
Cafeterias	30-50
Gymnasiums	30-50
Parking areas (uncovered)	1-2

*A measure of light intensity on a surface being illuminated. Defined as one lumen of light per one square foot of surface area.

Lighting standards will be assessed on a yearly basis and maintained through delamping and will be a consideration for remodeling and new construction projects.

- **Elementary Schools; Cedar Hill, Oak Street, Liberty Corner and Mount Prospect:**
 - Hallway lights will be turned on at 6 AM and faculty and teachers will turn on classroom lights and office lights. At the end of the day teachers and faculty should turn off all office lights and lock the doors. The custodial crew will only turn on the lights to areas they will be working on and they will turn the lights off and lock the doors at completion of each room/space.

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The Custodial Department will experiment with working in teams whenever possible.

Temperature Control

On regular school days, temperatures will be maintained for the entire building 30 minutes before the start of school until 30 minutes after dismissal. Special consideration will be given to certain preschool and special education classrooms when appropriate.

The following are acceptable temperature ranges for the heating and cooling seasons.

<u>Areas</u>	<u>Heating Season</u>	<u>Cooling Season</u>
Classrooms (grades K-12)	68-70 F	76-78 F
Gymnasiums and locker rooms	65-70 F	76-78 F
Offices	68-70 F	76-78 F
Shop rooms	65-70 F	76-78 F
Halls	65-70 F	76-78 F
Kitchens and cafeterias	65-70 F	76-78 F
Network/Server Rooms	Max 75 F	Max 75 F

(Temperatures are measured four feet above floor level in the center of the room.)

Night setback temperatures will be 10 F lower than occupied times for all areas without scheduled events.

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Ventilation

All vents will be unobstructed to maintain proper airflow and function of the ventilation equipment.

Ventilation systems will be controlled to maintain the correct amount of airflow based on occupancy. Special attention will be paid to gymnasiums because they are designed for full capacity, but rarely are fully occupied.

Activity Scheduling as Related to Lighting and Heating

Building administrators or their representative will schedule early morning events; evening events or other scheduled activities in a way that will concentrate occupancy into a minimal number of rooms or wings within a building.

Large areas such as auditoriums and gymnasiums will not be used for small groups unless necessary. Use of these areas will be coordinated with the maintenance staff to reduce energy use during unoccupied times.

Computers and other electrical equipment

A set of district wide computer images will be developed to minimize energy consumption of PC's via elimination of screen savers and use of sleep and/or hibernation modes.

Computers will be shutdown at the end of the week and the IT staff will continue to develop strategies that allow more frequent powering down of district PC's.

Computer monitors and projectors should be shut off when not in use.

Power management features will be activated on all office equipment (printers, copiers, for example) for those with the capability.

Electronics, personal appliances, and office equipment should be shut off at night and unplugged during any extended school breaks.

Personal beverage makers, warmers and space heaters are restricted from school district facilities, unless authorized by facility operations.

Refrigerators in the staff lounge and science areas will be emptied and unplugged during the summer, unless in use for summer programs.

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Vending machines (soda, juice, water) not in use will be unplugged during the summer and all machines will be de-lamped.

Kitchens

Appliance and equipment “on” times will be as close as possible to the actual use.

Ventilation fans should be used in conjunction with equipment use.

Refrigerator and freezer doors should remain closed as often as possible.

Unused kitchen equipment will be unplugged during the summer.

Freezers and refrigerators will be consolidated during the summer or during the school year if possible.

Upright freezers and walk-in coolers will be emptied, propped open and unplugged during the summer. Lights should be tuned off when not in use.

Water Heating

Thermostats for hot water heaters will be set so water delivery temperature at all sinks will not exceed 110 to 120 F.

Thermostats for hot water heaters that service dishwashing equipment will be set at 180 F.

Water Conservation

Water leaks will be fixed as soon as possible.

Efficient water practices will be considered during ground irrigation.

Future Purchases

Energy and water efficiency will be a consideration for all future remodeling and new construction projects. Hybrid vehicles should be given consideration for any future district purchase.

ENERGY STAR products will be considered when purchasing any new equipment or appliances.