

CPS ENERGY & RECYCLING BEST PRACTICES

This Energy and Recycling Policy is designed to save resources while supporting the educational mission of the District. The building principal, engineer, and their area supervisors share accountability for following this policy. All operations of the District facilities shall be governed by the following policy and participation is mandatory for all staff and students of the Chicago Public Schools.

CPS ENERGY PROGRAM BEST PRACTICES**Building Schedules and Occupancy**

- A school day is defined as 30 minutes before the first bell rings to the time that the last bell rings, releasing the students from regular school hours. During this time the schools are considered occupied.
- All hours outside of the defined school day are considered unoccupied periods of time and building systems shall be scheduled accordingly to prevent unnecessary heating and or cooling.
- Official CPS after school programs and building rentals that include utility charges are exceptions to the rule.
- Weekends and holidays are considered unoccupied periods of time and school building systems shall be scheduled accordingly.
- Office CPS

General Equipment

- Computers shall be shut off each day. Computers automatically update and shut down once logged off; contact the Help Desk at 3-EXCL if computers do not automatically shut down.
- All staff members are responsible for shutting down their personal office equipment (printers, copiers, scanners, and other peripherals) at the end of each day.
- Personal space heaters are prohibited and will be removed.
- Personal appliances, such as refrigerators, electric coffee makers, microwaves, water heaters/coolers and toaster ovens, shall only be present in designated lunch areas and are prohibited in classrooms or at desks.
- All building exhaust fans shall be turned off during unoccupied hours, where appropriate.
- All electrical equipment shall be shut down or unplugged over long weekends and school breaks.
- All new appliances and equipment, including computers, monitors, printers, photocopiers and facsimile machines, shall meet Energy Star certification. When Energy Star labeled products are not available, products that fall in the upper 25 percent of energy efficiency performance, as designated by the Federal Energy Management Program shall be purchased.
http://www1.eere.energy.gov/femp/technologies/eep_fedrequirements.html

CPS ENERGY PROGRAM BEST PRACTICES (Cont.)

Lighting

- All interior lights shall be turned off in any area that will be unoccupied for more than fifteen minutes except in corridors, stairwells, and exits as required by code.
- Use task lighting to reduce overall illumination levels when possible.
- After-hours building service workers, such as custodians, are to turn on lights only in the area where they are currently working and ensure all lights are turned back off when they are finished.
- Take advantage of daylight. Many classrooms have dual light switches which allow for half of a classroom's lights to be turned off when enough daylight is available.
- Exterior lighting shall be off during daylight hours and scheduled accordingly as seasons change.
- Parking lot lights shall be turned off at the close of regular school day or evening activities (by 12 am at the latest).
- Stadium lighting shall be turned on no more than ½ hour before dusk or game time, whichever is later. Stadium lighting shall not be on when not in use.
- All marquee signs shall be shut off by 10pm on school nights and over holidays and weekends.

Heating, Ventilation, and Air Conditioning (HVAC) Temperature Control

A number of variables interact to determine whether people are comfortable with the temperature and relative humidity of the indoor air. Factors such as clothing, activity level, age, and physiology of people in schools vary widely, so the thermal comfort requirements vary for each individual. The below temperature settings were adopted based on ASHRAE Standard 55, Thermal Environmental Conditions for Human Occupancy.

Heating Season (October 15 – May 15)

- Classroom and Office temperatures shall be set to between 68-74 degrees in occupied mode and 55 degrees in unoccupied mode.
- Gymnasiums and Shops shall be set to 68 degrees.
- Unoccupied spaces shall be set to 55 degrees.
- Evening temperatures shall be set to a point that minimizes boiler operation during unoccupied hours, while ensuring system recovery for occupancy. Severity of weather may alter this setting from time to time, but the recommended setting is 55 degrees.
- Heat shall be furnished only for official CPS activities and user groups that have specifically contracted for heat. Consolidate necessary CPS evening work into the minimum number of zones as possible. Heating is not provided for individual staff outside of normal hours.

Cooling Season (May 15 to October 15)

- During occupied hours, thermostat settings shall be between 73-79 degrees and turned **off** when the area is unoccupied. *(Each degree below this can increase energy consumption by 2%).*
- All A/C units shall be shut down by 4 pm each day (except when there is an official after school event being held).
- Whenever possible, consolidate official after-hour events into close proximity to minimize cooling.
- Air conditioning shall be turned off in classrooms during summer months, unless the classrooms are being used for summer school or year-round school.

Year Round

- All windows and exterior doors must be kept closed to prevent hot or cold air from escaping the building. (During cooling season this only applies to schools with air conditioning.) Corridor doors, classroom doors, and doors to gyms and pools shall also be kept closed.
- Do not obstruct ventilation ducts with books, charts, furniture or plants.
- External entrances and exits in use shall be limited to minimize heating and cooling losses.
- Portable space heaters and portable air conditioners of any kind are banned within the District's facilities. The only exceptions are those approved for use by the Dept. of Operations based on system malfunction or special circumstances.
- Employees and staff are encouraged to wear appropriate clothing during the heating and cooling seasons.
- Non-classroom warehouse and garage facilities, when unoccupied by personnel, will be maintained at 55 degrees during heating season.

Building Equipment Set-points

- **Water Heaters:** Hot water temperature set point will be 120 degrees, with the exception of Food Service operation.
- **Building Automation Controls:** Optimize building start/stop equipment schedules to minimize operating time and stagger start-up times to limit electrical demand.

Preventative Maintenance

- **Water Heaters:** Periodically blow down your hot water heater to reduce sediment buildup.
- **Filters:** Routinely replace or clean filters to minimize pressure drops.
- **Belts:** Routinely adjust drive belts for proper tension and replace worn belts.
- **Bearings:** Routinely lubricate motor and equipment bearings.
- **Dampers:** Inspect dampers, damper seals, linkages and operators for proper sealing and operation. Repair and replace as needed for proper cycling, full closer and tight sealing.
- **Insulation:** Repair or replace damaged or missing pipe, duct and equipment insulation.
- **Piping Systems:** Routinely blow down strainers and clean strainers and clean strainer screens. Repair or replace leaking system components.
- **Air Systems:** Seal leaks in duct work, around coils and in air handling equipment with duct sealer and /or sheet metal closures.
- **Boilers and Cooling Tower Blow down systems:** Check and adjust automated blow down systems to minimize blow down while maintaining appropriate cycles of concentration.
- **Cooling Towers:** Check and clean spray nozzles, distribution basin, fill and sump screens.
- **Boiler Burners:** Routinely analyze flue gas and adjust burners for optimum fuel-air ratios.
- **Steam Traps:** Routinely test and repair or replace leaking or failing steam traps.

Water

- Repair leaking faucets and faulty flush valves promptly.
- Make sure irrigation systems are turned off when it rains.
- Irrigate only in the early morning or late evening hours. This timing minimizes evaporation into the air.
- Install faucet aerators spray nozzles to minimize water use and reduce hot water consumption.

Pools

- Indoor pool water temperature shall be set to between 76-82 degrees during occupied hours.
- If dehumidification equipment is used, set it to maintain 60 percent relative humidity in pool room.
- Pool cover shall be *on* whenever the natatorium is closed and locked, and *off* any time it is open. Check that pool and natatorium are empty before deploying cover.

CPS RECYCLING PROGRAM BEST PRACTICES

CPS has a comprehensive Single-Stream Recycling Program in which materials may mix together at all stages of collection and disposal. Schools are equipped with clearly marked exterior recycling dumpsters and receive regular collection service. Participation in the CPS Recycling Program is mandatory under this policy. Schools are equipped with separate waste and recycling dumpsters that are clearly marked in English, Spanish, and Polish. All recyclables should be placed in the recycling dumpster. Sorting is not required.

Single-Stream Accepted Materials:

- Paper (office, construction, junk mail, phone books, catalogs, magazines)
- Cardboard (flattened)
- Plastic Bottles & Containers (#1-5 and #7)
- Softcover Textbooks
- Steel Cans
- Aluminum/Tin Cans
- Cereal Boxes
- Beverage Cartons: Milk & Juice (drained)
- Glass Jars & Bottles
- Clean Foil
- Empty Aerosol Cans

Recycling Procedural Guidelines:

- Recycling must be disposed of separately in the clearly marked exterior recycling dumpster(s).
- Use of black bags is **not** allowed for recyclables.
- No bags are necessary for any item, but if this is a preferred collection method, clear or blue bags must be used in order to differentiate from garbage.
- No sorting of recyclables is necessary, i.e. all Accepted Materials may be mixed together in interior and exterior containers.
- Food and liquids contaminate recycling. Food must be rinsed from cans and packaging before being placed in a receptacle, and liquids must be drained.
- Excess liquids may be collected in a bucket and drained down a large interior drain.
- No broken glass in recycling-please dispose in the garbage.
- Commonly confused items: Styrofoam, plastic grocery bags, plastic wrap/sandwich bags, plastic cutlery, napkins, and paper towels are NOT recyclable and must go in the garbage.

CPS RECYCLING PROGRAM BEST PRACTICES (Cont.)

Special Recycling:

Some items outside the scope of the Single Stream Program's Accepted Materials list may still be recycled through other means.

ITEM	DISPOSAL/RECYCLING STRATEGY
Hardcover Textbooks Toner/Ink Cartridges	Contact Lakeshore Recycling Systems to coordinate textbook roll-off container as needed. Roll-Off Service Line: (773) 579-1999 Free recycling through Office Depot. Sign up to organize shipment and sign up for rewards at <u>www.mybusinessrecycles.com</u>.
Electronics	Contact CPS Asset Disposal Program: Call 3-EXCL or go to https://secure2.cps.edu/DisposalServices/
Rechargeable Batteries (Lithium-Ion, Ni-Cd, Ni-MH, Ni-Zn, SSLA, cellphone)* Compact Fluorescent Lightbulbs	Refer to Municipal Battery Recycling at call2recycle.org *Standard alkaline batteries (AA, AAA, D) may be disposed of in garbage. Collect and dispose of at local Home Depot, Ace or True Value Hardware stores, Ikea, or City recycling drop-off facilities.