

ENERGY AND RESOURCE CONSERVATION PROCEDURES

Resource Conservation Management Program

In support of the Highline School District's Energy and Resource Conservation Policy #8600, the following operations and maintenance procedures are set forth to establish standards that optimize the learning and working environment, and maintain safety and security while avoiding unnecessary utility expenditures.

The district is committed to environmental stewardship and supports the State Sustainable Schools Guidelines and King County Green Schools Program and to continuous improvement in the efficiency, maintenance, and operation of all systems. All district staff, students, and community users are expected to follow the procedures set forth below to conserve resources. District Building Standards will reflect conservation guidelines and goals.

1. LIGHTING

Lighting levels are designed in accordance with the State of Washington's OSPI Health and Safety Guide (2003). Please note that lighting levels vary depending on the use of an area (WAC 246-366-120). Lighting will be turned off in any unoccupied areas (including sports fields), except for emergency lighting in corridors, stairwells, and exits, as required by code, or where necessary to maintain an appropriate level of safety.

I. Interior Lighting

- Staff should turn off lights in classrooms (when leaving for recess, lunch and assemblies), and in shops, offices, storerooms, adult restrooms, libraries, custodial rooms, etc., when the space is unoccupied for 10 minutes or longer. Book rooms, storerooms, and small spaces will be lit only when used.
- If personal task lamps are used, it is preferred they replace equivalent overhead lighting, be efficient models and use (compact) fluorescent bulbs in place of incandescent bulbs.
- CFL and florescent lighting in gymnasiums, multi-purpose rooms, commons and cafeterias must be off unless the room is being used, or going to be used within 10 minutes. Many new elementary schools have CFL gym and cafeteria lighting that is switched for several levels of brightness: maximum lighting is designed for event not daily use (i.e. do not turn on all lamps daily.)
- Partial lighting for small groups in large spaces is expected.
- Night custodians will light only the specific building area in which they are working.
- Hallway and "commons" lighting should be turned off at the end of the instructional day when not needed and/or partial lighting (one bank) is suggested when full lighting is not required.
- Partial lighting in classrooms and offices with windows is a consideration on sunny days. New school classrooms are designed to turn off the bank of lights running parallel to the windows when there is available adequate daylight.

- Buildings will be lighted one hour before the start of school and two hours after the last bell, except for scheduled regular building users and events scheduled by custodial work order. Custodians will stage lights on in the mornings based on occupancy and staff is expected to turn on their office and classroom lights.

II. Exterior Lighting

- Exterior lighting will be operated to support building use/security only. Exterior lighting is not to be turned on during daylight hours. If this occurs, custodial staff is to manually re-set or submit a work order request.
- Parking lot lights will be turned off 15 minutes to 30 minutes after the night custodian leaves.
- Covered play areas will be unlit unless by specific request.
- Building accent/perimeter/ambient lighting will be as minimal as security allows.

2. HEATING AND COOLING

Heating systems should always be operated in the most economical and efficient way possible. These systems should operate for the minimum amount of time required to provide the approved climate for a specific area and activity.

III. Regular school days:

The heating system is set to provide the following temperatures during occupied times:

Classrooms, Libraries, Offices	68°-70F
Gyms and Multi-purpose Rooms	65° F
School Shops	68° F
Hallways	65° F
Kitchens	60° F

There is a +/- 2 degree programmed temperature deviation controllable at DDC (centrally controlled) thermostats.

- Buildings will be up to temperature one hour before the start of school based on the bell schedule and HVAC will end with the last bell, except for scheduled regular building users and events.
- Space heaters and fans may not be used unless authorized by the Facilities Department for extenuating circumstances related to the individual occupants of the space or the malfunction of the HVAC system. (See Allowable Appliances)
- The Night Setback temperature at all facilities is 55°F. Summer cooling will be at 76° F.
- Close window coverings at the end of the workday to the extent blinds and shades are present.
- Keep doors and windows closed when HVAC system is operating.
- Student Vacation Days: On staff workdays when school is not in session, the entire building will be operated at the night setback of 55° F. Variations for working staff comfort can be made via override controls for specific zones and lengths of times.

IV. Weekends and Holidays:

- The entire building will operate at the night setback of 55° F. Kitchen hot water will be shut off during student vacations of two weeks or longer when not needed.
- The “Annual Notice of Cold Weather Procedures” for custodians supersedes these guidelines.
- Building HVAC schedules will be based on occupancy so that unused spaces are not heated, cooled, or ventilated, and building use is consolidated.
- Boilers will be closed down during the summer season and flue gases will be analyzed annually.
- Gas hot water tanks (not serving the kitchen) will be set to 120° F and checked annually.

3. ELECTRICAL USE

- Staff is responsible for turning off their own electronics. All electrical equipment such as computers, monitors, printers, copy machines, lamps, scanners, projectors, document cameras, speakers and radios, etc., must be turned off at the end of the workday, end of the week, before breaks and summer vacation. Technology Services controls hardware for updates, without end user assistance (unless a user has been informed by Technology Services in order to expedite work).
- All office copiers should be set for an energy saving sleep mode of not more than 30 minutes. In addition, copiers should be configured with a shut down and wake up time from 4:00 pm to 7:00 am.
- Screen savers are should not be used as they are unnecessary and an inefficient use of energy. LCD screens only, can easily be turned off when you are away from your computer for more than a few minutes with no memory loss or impact to security settings.
- Personal appliances are allowed for specific circumstances. All district refrigerators and freezers must be cleaned out, turned off, and unplugged during the summer break along with any allowed personal refrigerators. Coffee pots and beverage makers are authorized for staff lounge areas only. (See attachment for Allowable Appliances.)
- Nutrition Services will control the shutdown of their related refrigerators and freezers, consolidating wherever possible. Walk-in Refrigerator boxes should be maintained at 41° F.
- Kilns, self-cleaning ovens, and any other high-energy use items should only be activated between 2:00 PM and 5:00 AM to control demand power charges.
- Vending machines, exhaust fans, appropriate circulating pumps and other electrical equipment not needed, will be turned off during vacation times.
- Vending machines will have the lamps removed and the ballast disconnected if the machines are in a well-lit area.
- Staff will unplug any allowed classroom appliances during winter break and summer vacation to eliminate “vampire” power use
- “Energy Star” appliances will be provided for centralized, common school sites.

4. WATER

- Report running toilets, urinals, dripping faucets and leaks to Custodians who should repair or place work orders for repair.
- Shut off manual faucets while washing up and turn water on again to rinse when possible. Check and calibrate automatic faucets annually.

- Hot water heater thermostats will be set so water temperature at all sinks will not exceed 110°F (WAC 246-366-060).
- The water heater serving the kitchen should not exceed 140° F.

5. IRRIGATION

- Irrigating athletic fields should be scheduled as early as possible in the day to minimize evaporation and prevent disease.
- Irrigation for lawns and planting bed is to be done only when needed during June, July, and August. May and September variations to this schedule will be communicated by Facilities as needed.
- Irrigation will be manually turned off when rainfall nears a 1/2" per week; the same applies to automated systems in new sites.
- During drought seasons, irrigation will be limited to athletic fields, newly planted landscapes and other specified areas.
- Grounds will mulch planting beds to decrease evaporation whenever possible.
- If allowable, irrigation accounts will be deactivated October through April as a cost saving measure.
- Irrigation will be done to meet the terms of permits/bonds on new construction and landscaping. Typically established Northwest landscape vegetation does not require irrigation after two years of regular watering. Variations to this schedule will be communicated by Facilities as needed.

6. REFUSE AND RECYCLING

Students and staff are expected to recycle all clean paper, cardboard, plastic and glass bottles and jars, and aluminum cans in the recycling containers provided. Staff is also expected to recycle all applicable office papers, vehicle batteries, printer and toner cartridges, projector bulbs, fluorescent lamps, and ballasts.

- The custodial staff will monitor the quantity in their dumpsters to limit paying for partially filled containers. Dumpster size and frequency of pick-up will be adjusted according to need and cost economy by contacting Facilities.
- Regular hauling service will be placed on-call only, during student breaks of two weeks or longer.
- District garbage dumpsters are for school waste only. Disposing of personal or home items in district containers is classed by state law as "illegal dumping" and is a cost for the district.

7. REDUCING WASTE

Staff can reduce the amount of paper used and recycled:

- Change the default on district copiers to double-side copies.
- Print drafts and internal documents on "second chance" or used "single-sided" paper.
- Print only the amount needed. Limit the distribution of correspondence and reports to those who really need "hard copies." Route one copy for several readers rather than providing multiple copies.
- Limit computer printouts. Use electronic mail for sending and receiving business messages. Review text onscreen to limit mistakes on drafts and use print preview prior to printing.
- Reset copy machine settings prior to copying to eliminate unintended errors or copies.
- Store information in electronic files/discs instead of as hard copies.
- Cancel unneeded or unused subscriptions or incoming junk mail.

8. COMMUNITY USE SCHEDULING

Early morning events, evening events, weekend use, or other scheduled activities will be scheduled in the same building proximity in order to cut energy use. For example: Groups with similar activities will be encouraged to combine efforts to one location instead of multiple locations.

- Use spaces appropriate for the size of the user group. Large areas such as auditoriums and gymnasiums are not to be used for small groups unless necessary. Use of these areas will be coordinated with the site administrators and custodians to reduce energy use during unoccupied times.
- Turn on only the lighting level needed for the group if smaller groups are in large spaces, with custodial assistance.
- Groups will be assessed fees for utility and garbage use, and will receive District Conservation Guidelines.

9. NUTRITION SERVICES – KITCHEN CONSERVATION GUIDELINES

V. Lighting

Turn out the lights in unused areas such as offices and storerooms; turn out kitchen lights where possible.

VI. Refrigeration

Open walk-in, refrigerator and freezer doors as infrequently as possible; plan food take out as efficiently as possible.

- Place frequently used items in the front of walk-ins, refrigerators, and freezers and close to the doors.
- Defrost food in the refrigerator or walk-in whenever possible.
- Make certain the doors close tightly.
- Consolidate as much stored food/frozen food over the summer as feasible.
- Empty, unplug, and prop open the doors of upright freezers during major school breaks if possible.

VII. General Cooking

- Turn on appliances and equipment as close as possible to actual use, and turn off immediately after use, unless cool-down mode is required.
- Turn down the heat once water boils: it does not get hotter than 212° F.
- Cook in the largest volume possible at the lowest temperature to give satisfactory results.
- Use ventilation fans in conjunction with food preparation.
- Unplug unused kitchen equipment during all school breaks if possible.

VIII. Water Use

- Dish machines have a temperature booster attached that heats the water used in the final rinse to a temperature of 180° to 190° F. Water this hot heats the surface of the dishes and utensils to 160° F and above.
- Do not turn up school hot water tank temperature to increase kitchen water temps. One heater serving the kitchen will be set at 140° F by Facilities plumbers.
- Do not let the water run. Incorporate efficient use of water in kitchens for food preparation, food thawing and clean-up procedures.

IX. Garbage and Recycling

Recycle cardboard boxes, paper, plastic bottles, jugs and tubs as well as #10 tin cans to control garbage cost. Rinse out tin cans and rinse significant food residue out of plastic containers.

Use durable, washable trays whenever possible, and use paper trays instead of Styrofoam for emergencies.

X. Responsibility

It is the responsibility of individuals, who operate machines and/or equipment as referenced above, to follow these operational procedures.