



## ENERGY AND RESOURCE CONSERVATION PROCEDURES

In support of Olympia School District Policy No. 6810, the following guidelines are set forth to establish standard practices to conserve energy and natural resources while maintaining optimum working conditions and sound financial management.

### **Resource conservation goals for the district:**

1. Reduce the district's demand for energy and water.
2. Avoid unnecessary utility costs.
3. Minimize the amount of waste of consumable materials.
4. Promote conservation principles with all students and district staff.

It is the joint responsibility of administrators, support personnel, teachers and students to contribute to energy efficiency and unnecessary utility cost avoidance to ensure the achievement of energy savings throughout the district. The resource conservation program will provide district staff with training and guidance on the best practices to accomplish conservation goals. The administrator will be provided with information reflecting the utility consumption for his/her building on a regular basis and reports are to be shared with the building staff. Facilities are encouraged to set an example of environmental stewardship and develop responsible behaviors toward natural resource use.

### **FACILITY LIGHTING**

- Where possible, we are all encouraged to take full advantage of natural light in classrooms and work areas. Consider leaving artificial lights off or use multi-level lighting when natural illumination is adequate.
- When classrooms, shops and offices will be unoccupied for 5 minutes or longer, lights should be switched off. Staff shall not interfere with motion detectors. Submit work order for repairs if they operation poorly.
- When gyms, auditoriums, and multi-purpose rooms will be unoccupied for 30 minutes or longer, lights should be off if they do not automatically turn off with sensors (or half-off where applicable).
- Lighting in hallways and commons areas should be turned off at the end of the school day or when no longer needed for scheduled activities and events.
- For school activities, events, and Facility Use beyond school hours, use the amount of lighting necessary in the occupied areas only.
- Night custodians should only turn on lights in the immediate area in which they are working.
- All outside lights will be turned off during daylight hours, using photo sensors where possible.
- Outside building and parking lot lights should be scheduled off between 11:15 pm - 5:45 am (or 15 minutes after building is secured and 15 minutes prior to first custodian arrival). Safety lighting will be operated at a necessary minimum.
- Standard lights for classrooms will be T-8, 25 watt 3500 K, and for gyms T-8, 32 watt, 3500K. Our goal is to eliminate all T-12 lights by 2012.

### **HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEMS**

#### **A. General Guidelines**

- HVAC systems should be operated in the most economical way possible to provide the indoor climate that is appropriate for a specific activity, meets indoor air quality standards and protects equipment.
- A school closure of three or more days, including weekends, will be viewed as an opportunity for energy conservation and HVAC systems will be set for holiday scheduling.
- After-hour operation of building HVAC systems must be authorized by the administrator and follow Facility Use and Rental procedures.
- Every opportunity to decrease HVAC system operating times should be considered by the custodian and administrator. These may include early dismissal, cancelled school, inclement weather days, in-service days, and other cancelled events or activities.

**B. School Days**

On regular school days, the HVAC system start up times are set to provide the following temperatures from the time of standard teaching staff arrival (or no earlier than 1 hour prior to school start time) until the time of last class dismissal.

Area	Heating set point maximum:
Auditoriums	68°F
Classrooms	68°F
Gyms, Exercise and Locker Rooms	65°F
Hallways	65°F
Kitchens, Cafeterias, Multi-purpose Rooms	68°F
Libraries	70°F
Maintenance Shops/Warehouses	65°F
Offices	70°F
School Shops	67°F
Storage and Unoccupied Spaces	55°F

Acceptable temperature deviation from set point is  $\pm 2^\circ\text{F}$  by using local thermostat override or central control system override. Some variations may be allowed based on specific HVAC system and facility needs.

- Air conditioning set points shall be no less than 78°F during occupancy and 85°F during unoccupied periods. Under no circumstances will air conditioning be used in unoccupied rooms during the summer months. Exception: computer lab and server room cooling set points should be set at 75°F to protect equipment. Close doors and windows when the air conditioning equipment is in operation.
- When operable windows are available, air conditioning should not be used if the outside air temperature is cooler than the indoor space temperature.

**Staff Responsibilities**

- Staff members are responsible for closing windows, blinds, drapes, and shades in their individual work spaces at the end of each day to minimize heat loss.
- Staff members shall not interfere with the operation of thermostats in their rooms or buildings. This includes covering, manipulating or moving a thermostat.
- If a staff member or student has medically necessary heating, cooling requirements according to a health practitioner, notify an Administrator, or the Human Resources Director and the District will adjust room temperatures to meet these medical requirements.

**C. Nights, Weekends, Holidays and Vacation Days**

- At night and on weekends and holidays, the building shall be operated at an unoccupied temperature set point of 55°F. Some variations may be allowed based on specific HVAC system and facility needs.
- Beyond regular school hours and days, normal HVAC will be provided for authorized school activities and events and approved Facility Use, but will not be provided for informal or “pick up” activities.
- On weekdays when school is not in session, the entire building shall be operated at unoccupied settings. If offices and classrooms are occupied by regularly assigned staff, zone heating shall be used rather than heating the entire building. HVAC settings for zoned areas shall be the same as regular school day operation.

**DOMESTIC WATER HEATERS**

- Thermostats for water heaters servicing washrooms and classrooms will be set not to exceed 115°F.
- Thermostats for dishwashing boosters and water heaters servicing kitchens will be set not to exceed the minimum necessary to generate a water temperature of 180°F at the jets.
- Hot water boosters for dishwashers shall be operated only when the dishwasher is in service.

## USE OF SPACE HEATERS

The Support Services Center will permit special approved space heaters only in the following limited instances:

- When medically necessary according to a health practitioner.
- When the District cannot meet heating needs as certified by Support Services Supervisor in consultation with Heating Ventilation and Air Conditioning Technicians.
- During temporary emergency conditions.

## DISTRICT SPACE HEATER PROCEDURES:

- The heater must be certified and listed by a nationally recognized independent testing laboratory, such as Underwriters Laboratories (UL).
- The heater must have built in automatic shut off tip-over protection.
- The heater must not exceed 1000 watts maximum output.
- Freestanding heaters must have an on/off switch.
- The heater should be plugged directly into an approved electrical receptacle outlet (International Fire Code, Portable, Electric Space Heaters, Section 605.10.2, Power Supply) and not plugged into an extension cord or power tap or strip (International Fire Code, Portable, Electric Space Heaters, Section 605.10.3, Extension Cords).
- Combustibles such as books, chairs, papers and even walls should be at least three (3) feet away from the heater. (International Fire Code, Portable, Electric Space Heaters, Section 605.10.4, Prohibited Areas).
- The heater must be turned off if you leave the area.
- The heater must be placed on the hard surface floor, never on rugs or on furniture.
- The Electrical Code establishes maximum electrical loads where electrical appliances are connected to receptacles by cords and plugs. A maximum load of 12 amperes is allowed for a 15-ampere-rated circuit, and a maximum load of 16 amperes is allowed for a 20 ampere-rated circuit. A typical 1500-watt electric space heater draws a current of 12.5 amperes. Accordingly, to avoid creating a hazardous condition that could cause a fire only one high use item may be plugged into an outlet since space heaters, refrigerators, toasters, microwaves, and coffee makers and typically draw a significant amount of current.
- The unit must not block any portion of an exit, exit passageway or high traffic area or restrict egress during a building evacuation event.
- The unit must be operated and used according to the manufacturer's operating instructions. (It is recommended that users read the instructions and warning labels to understand how to operate the heater safely. Keep the owners manual in a convenient place to refer to when necessary.)

## SOLID WASTE AND RECYCLING

- All students and staff are encouraged to reduce, reuse, compost and recycle whenever possible to minimize the amount of solid waste entering our dumpsters and landfills.
- The custodial staff will monitor the quantity in the garbage, compost and recycling containers. Container size and frequency of pick-ups will be adjusted according to need and cost economy.
- Regular hauling service will be discontinued and put into the least expensive status during winter and summer vacations.

## **ELECTRICAL APPLIANCES AND EQUIPMENT**

- All appliances and electronics used on District property must be certified and listed by a nationally recognized independent testing laboratory, such as Underwriters Laboratories (UL).
- Staff are encouraged to share appliances, especially those available in staff rooms and kitchens.
- Staff are encouraged to minimize the number of appliances used in their classroom or office.
- Ornamental lights shall be used only for special occasions.
- Ornamental lights and all appliances must be operated and used according to the manufacturer's operating instructions. (It is recommended that users read the instructions and warning labels to understand how to operate the lights safely. Keep the owners manual in a convenient place to refer to when necessary.)
- Ornamental lights shall not be placed on paper to reduce fire risks.
- Ornamental and task lights shall be of the best available technology for safety and energy savings. Compact florescent light bulbs (CFL) or LED (light emitting diodes) are preferred because they are cool to the touch and energy efficient.
- Electronics that draw power even when turned off must be plugged into power strips that can be turned off at the end of the day or separately unplugged every day. These electronics include televisions, printers, copy machines, speakers, amps and chargers.
- To avoid expensive and wasteful overnight plug-loads, all electrical office and classroom appliances should be turned off at the end of the workday, including monitors, printers, chargers, copiers, scanners, radios, speakers, desk lights and display lights.
- Items that do not have to be turned off are computers served with special software to turn them on and off and main building servers and head custodian computer hard drives.
- Energy efficient or "Energy Star" products should be considered first when making equipment purchases.
- Minimize the number of refrigerators and freezers outside of the kitchens. Combine multiple units in common areas.
- All refrigerators and freezers are to be cleaned out and unplugged during summer break. Leave doors propped open to prevent mold.
- Child Nutrition Services will control the shutdown of applicable kitchen refrigeration and equipment.
- Kilns, self-cleaning ovens, washers/dryers and any other high-energy use items should only be activated between 2 pm and 5 am to minimize peak electrical demand charges.
- Individuals are responsible for the electrical appliances in their workspaces.

## **DOMESTIC WATER USE AND IRRIGATION**

- Students and staff are expected to practice water conservation at every opportunity.
- Building plumbing and irrigation equipment leaks are to be reported and repaired as soon as possible.
- Landscaping should use draught tolerant design and native plants whenever possible. These areas will not be irrigated once established.
- Staff and students shall not use water from indoors for outdoor activities such as gardening or water play.
- Irrigation months shall be limited to April through October. During non-irrigation months, meters shall be deactivated with the proper utility agency.
- Irrigation timers will be programmed for the most efficient watering schedule for a specified landscape and soil type. Irrigation control systems will only be operated by district grounds staff.
- All outdoor watering should be scheduled to minimize evaporation, prevent disease and protect irrigation equipment.
- During drought seasons, irrigation will be limited to secondary school playfields and newly planted landscape beds and dress lawns.