

# RIVER VALLEY SCHOOL DISTRICT

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### **Energy Management**

It is the policy of the River Valley School District to conserve energy and natural resources. The implementation of this policy is the joint responsibility of board members, administrators, teachers, staff, students and support personnel, and its success is based on cooperation at all levels.

## **Objectives**

- ensure acceptable indoor air quality in accordance with industry standards
- ensure adequate comfort of students, staff, and other users of facilities
- eliminate energy waste.

#### Responsibilities

- Business Manager/Building and Grounds Director will maintain accurate records of energy consumption and cost and will track changes in energy use in order to assess the success of the energy conservation program.
- Business Manager/Building and Grounds Director will develop short—and long range strategies in the areas of facilities management and curriculum development that address energy awareness and conservation.
- Business Manager/Building and Grounds Director will provide information to the public on the goals and progress of the energy management and conservation program.

Energy management is necessary in order for the District to minimize the impact energy cost increases will have on the budget, maintain a reliable supply of energy to meet the functional needs of the District, and ensure that energy is sued efficiently.

A strong commitment on the part of the Board and the Administration is important to an effective energy management program. It shall be the responsibility of each District employee and student to actively participate in conservation efforts in order to reduce consumption to levels prescribed by state, federal and local rules.

#### Lighting

- 1. During design and re-lamping projects, lighting should be provided within the following range:
  - Classrooms and offices: 62-65 foot candles (fc) but not less than 50 fc
  - Corridors: 20 fc but not less than 10 fc
  - Storage: not less than 10 fc
  - Gyms: 55-95 fc but not less than 30 fc
- 2. Natural lighting will be used where possible to attain lighting levels within this range. Use task lighting to reduce overall illumination levels. Refrain from turning on lights unless definitely needed.
- 3. All lights will be turned off in any area which will be unoccupied for a period in excess of fifteen minutes, except in corridors, stairwells, and at exits as required by code. All lights, except security lighting, will be turned off when facilities are not occupied.

- 4. For cleaning during off hours and in the morning when the building is being opened, the custodial staff will only turn on lighting where needed. The building will be fully illuminated not more than ½ hour before the normally scheduled arrival time for teaching and administrative staff.
- 5. Outside lighting will be off during daylight hours and will be turned off after the building is vacated (except for emergency lights).

## Heating, Air Conditioning and Ventilation

#### General

- 1. Exterior doors and windows will not be propped open during the heating season or when the air conditioning is in operation.
- 2. Doors between conditioned space and non-conditioned space will remain closed as much as possible.
- 3. Exhaust fans will be turned off every day and during unoccupied hours.
- 4. Outside air dampers will be closed during unoccupied times.
- 5. When cooling is needed, ceiling fans should be operated in all areas that have them.
- 6. Employees and students are encouraged to wear sweaters or similar clothing during the heating season.
- 7. Portable space heaters or air conditioners of any kind are banned from use within the District facilities, except where permission is granted.
- 8. Entrances and exits to all buildings will be limited in their use when possible to minimize heat loss.
- 9. Staff and students will not obstruct ventilation ducts or return grilles, nor tamper with temperature regulating devices.

#### **Heating**

- 1. Efforts will be made to operate heating systems in occupied zones only.
- 2. Heating Season Occupied Set Points:
  - A) classrooms and offices: 68 degrees 72 degrees F
  - B) locker rooms: 72 degrees F
  - C) vestibules, stairwells, mechanical/electrical rooms, elevator equipment rooms, unoccupied storage and similar spaces: 60 degrees F.
  - D) Non-classroom warehouse and garage facilities, when unoccupied by personnel: 55 degrees
- 3. Heating season unoccupied set point: 60-62 degrees F. This may be adjusted to a 60 degrees F setting during extreme weather.

## **Cooling**

1. Air conditioning will be utilized in classrooms during the summer months only when classrooms are scheduled for summer school or other community activities. Air conditioning may be used by exception as needed (e.g. cleaning crew, maintenance, etc.)

- Summer school classes will be scheduled in an area of the building that can be supplied from one HVAC unit.
- 3. Cooling Season Unoccupied Set Point: 82 degrees F. (or no cooling)
- 4. Cooling Season Occupied Set Points: 74 degrees 78 degrees F
- 5. Efforts will be made to operate air conditioning in occupied zones only.
- 6. Relative humidity levels will be monitored, and relative humidity levels should not exceed 60% at any time.
- 7. Areas that have air conditioning will be in unoccupied mode when not in use.

#### **Domestic Hot Water Systems**

1. Domestic hot water systems will be set no higher than 120 degrees F. Food services operations requiring higher temperature levels by code will use booster units or dedicated water heaters when possible.

### Office and Classroom Equipment

- 1. PC's will be programmed for the "energy saver" mode using the power management feature. If network constraints restrict this for the PC, monitors will be set to "sleep" after 10 minutes of inactivity.
- 2. Equipment including but not limited to copy machines, laminating equipment, TV's, VCR/DVD's, computer monitors, CPU's, printers and speakers, will be shut off each night and during unoccupied times. Fax machines may remain on. Power will be shut off at the power strip when practical.

#### **Personal Appliances**

1. The use of personal appliances such as coffee makers, microwaves, refrigerators, toaster ovens, pizza makers, hot plates and other appliances, other than those needed for instructional or health reasons, will not be allowed in classrooms, but will be confined to staff and faculty planning rooms where they can be appropriately used and monitored. The use of small radios, fans and desk lamps is allowed, but they should be turned off when not in use. Permission must be granted for the use of portable space heaters and air conditioners.

#### **Miscellaneous**

1. Outside organizations that use the school site must pay in advance (or set up a utility impound account), and may be subject to additional fees if there is excessive use, for the utilities consumed, including refrigerators, coolers/freezers and lighting.

#### **Building**

- 1. Insulation: Damaged, displaced or missing building insulation will be repaired.
- 2. Windows and doors: Weather stripping, glazing compound, caulking, seals and door closers will be maintained to minimize infiltration. Broken glazing will be repaired. Overhead doors will be kept closed as much as possible when heating or air conditioning.
- 3. Finishes and Furnishings: When refinishing and refurnishing, light colors will be used for better illumination at lower lighting levels. Height of systems furniture and partitions will be minimized for transfer of daylight.

4. Damaged or missing pipe, duct and equipment insulation will be repaired or replaced.

## Food Service

- 1. Run time of ovens, stoves and fryers will be kept at minimum levels.
- 2. Exhaust fans will be run only when necessary.
- Cold water will be used for rinsing and food service disposal.
- 4. Vendors will supply "Vending Misers" at no cost to the district, for all vending machines located on school property.

#### Water

- 1. All outside watering will be done early in the morning or in the evening.
- 2. Leaking faucets, fixtures, valves and piping will be repaired.
- 3. Dishwashers and clothes washers will be run using full loads. Shower time will be minimized.

# **Process Equipment**

- 1. Fume Hoods: Sashes will be closed when not in use. Fume hoods will not be used as storage cabinets or to evaporatively dispose of chemicals.
- 2. Kilns, Drying/Curing Ovens, Sterilizers: Preheat and run times will be minimized. Equipment will be shut off when not in use.
- 3. Wood dust collection, process exhaust and makeup air ventilation will be shut off when not in use.

#### **Purchasing**

- 1. New equipment purchased will be energy efficient models.
- When retrofitting, energy efficient light fixtures and controls will be used.
- 3. Water conserving models will be selected when purchasing faucets, showerheads, toilets, urinals, dishwashers, clothes washers and other water-using devices.

#### **Maintenance**

1. A maintenance schedule will be established for water heaters, hvac equipment, food service equipment, process equipment, light fixtures, etc. to maintain efficiency.

## **Training**

1. Building operators will be trained in the use of building automation and controls to minimize energy use.

CROSS REFERENCE: Policy #830 – Use of School Facilities

Policy #830-Rule - Facilities Use Regulations

APPROVED: November 18, 2010