# 7000 Program

**R7460 Energy Management**

**OPERATIONAL STANDARDS**

**General**

1. Instruction room doors shall remain closed when HVAC is operating. Ensure doors between conditioned space and non-conditioned space remain closed at all times (i.e. between hallways and gym or pool area).

2. Proper and thorough utilization of data loggers will be initiated and maintained to monitor relative humidity, temperature, and light levels throughout the organization’s facilities to ensure compliance with organization guidelines.

3. All exhaust fans should be turned off daily.

4. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines should remain on.

5. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.

6. All capable PC’s should be programmed for the “energy saver” mode using the power

 management feature. If network constraints restrict this for the PC, ensure the monitor “sleeps” after 10 minutes of inactivity.

Cooling Season Occupied Set Points¹: 74°F – 78°F

Unoccupied Set Point: 85°F

Heating Season Occupied Set Points: 68°F – 72°F

Unoccupied Set Point: 55° F

¹ Set points are in accordance with ASHRAE 55 “Thermal Conditions for Human Occupancy”

Air Conditioning Equipment

1. Occupied temperature settings shall NOT be set below 74°F.

2. During unoccupied times, the air conditioning equipment shall be off. The unoccupied period begins when the students leave the area at the end of day. It is anticipated that the temperature of the instruction room will be maintained long enough to afford comfort for

the period the staff remains in the instruction room after the students have left.

3. Air conditioning start times may be adjusted (depending on weather) to ensure instruction room comfort when instruction beings.

4. Ensure outside air dampers are closed during unoccupied times.

5. Ceiling fans should be operating in all areas that have them.

6. Relative humidity levels shall not exceed 60% for any 24 hour period.

7. Air conditioning should not be utilized in facilities during the summer months unless the facilities are being used for summer school or year-round school. Air conditioning may be

used by exception only or in those facilities that are involved in team-cleaning.

8. In all areas which have evaporative coolers such as shops, kitchens and gymnasiums, the doors leading to halls which have air conditioned instruction rooms or dining areas should be kept closed as much as possible.

9. Where cross-ventilation is available during periods of mild weather, shut down HVAC

equipment and adjust temperature with windows and doors. Cross-ventilation is defined as

having windows and/or doors to the outside on each side of a room.

10. Ensure dry food storage areas are maintained within code requirements. Typically, this is 55°F-75°F temperature and 35%-60% relative humidity. Utilize loggers to verify.

Heating Equipment

1. Occupied temperature settings shall NOT be above 72°F.

2. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a 60°F setting during extreme weather.

3. The unoccupied time shall begin when the students leave an area.

4. During the spring and fall when there is no threat of freezing, all steam and forced air heating systems should be switched off during unoccupied times. Hot water heating systems should be switched off using the appropriate loop pumps.

5. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria (with dishwasher booster).

6. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times.

7. For heat pumps, ensure a 6°F dead-band between heating and cooling modes.

8. Heating oil and propane (if applicable) levels should be physically measured and recorded by “sticking the tanks” at least on the following intervals: 1) recurring scheduled monthly date 2) immediately before new delivery, 3) immediately after delivery.

Lighting

1. All unnecessary lighting in unoccupied areas will be turned off. Staff should make certain that lights are turned off when leaving the instruction room or office when empty. Utilize natural lighting where appropriate.

2. All outside lighting shall be off during daylight hours.

3. Gym lights should not be left on unless the gym is being utilized.

4. All lights will be turned off when students and staff leave for the day. Custodians will turn on lights only in the areas in which they are working.

5. Refrain from turning lights on unless definitely needed. Remember that lights not only

consume electricity, but also give off heat that places an additional load on the air conditioning equipment and thereby increases the use of electricity necessary to cool the room.

Water

1. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired

immediately.

2. Grounds watering should only be done between 4am-10am. Do not water during the

 heat of the day typically between 10am-8pm.

3. When spray irrigating, ensure the water does not directly hit the facility.

4. Consider installing water sub-meters on irrigation and cooling tower supply lines to

 eliminate sewer charges.

**E. Kitchens**

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

2. Ventilation fans should be used in conjunction with equipment use.

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

4. Unused kitchen equipment will be unplugged during the summer.

5. Freezers will be consolidated during the summer. Refrigerators and freezers not in use will be turned off for the summer months where possible.

6. Every effort will be made to utilize vending machines (soda, water, juice, snacks) that are energy efficient: timers, de-lamping or shutting off during the summer months are strategies to consider for vending machines whenever possible.

**F. Purchasing**

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

Adopted: 12/2010