



## CONSOLIDATED SCHOOL DISTRICT OF NEW BRITAIN

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### **Board Policy Statement**

#### **3513.10 - Energy Management and Conservation**

Approved on October 3, 2011

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The Board embraces energy conservation and believes it to be our responsibility to ensure that every reasonable effort is made to conserve energy and natural resources while exercising sound financial management.

We recognize the importance of adopting an energy conservation policy to govern this program. We also affirm the implementation of this policy will be the joint responsibility of the board, administration, faculty, staff, students, support personnel, and Energy Education. Success is based on cooperation amid all groups.

To ensure the overall success of our behavior-based energy conservation program, the following areas will be emphasized:

- A. A designated campus Administrator will be accountable for energy conservation on his/her campus with Energy Education Specialist teams conducting energy audits and providing timely feedback.
- B. All personnel at each campus are expected to make a positive contribution to maximize energy conservation and produce real energy savings.
- C. Energy Education will implement its energy conservation program primarily through an energy management team led by the Energy Education Specialist(s) in accordance with "Energy Guidelines" that will be adopted by the administration and will define the "rules of engagement" for our energy program.
- D. Accurate records of energy consumption and cost will be maintained by the Energy Education Specialist for each campus to provide verifiable performance results on the goals and progress of the energy conservation program.

Further, to promote a safe, healthy learning environment and to complement the energy conservation program, each campus shall review and adhere to the preventative maintenance and monitoring plan administered by the campus physical plant for its facilities and systems, including HVAC, building envelope, and moisture management.



## CONSOLIDATED SCHOOL DISTRICT OF NEW BRITAIN

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### **Administrative Procedure**

#### **3513.10 - Energy Management and Conservation**

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#### **I. Guidelines for Energy Conservation & Building Management**

- A. Every person is expected to become an “energy saver” as well as an “energy consumer.”
- B. The staff member is responsible for implementing the guidelines during the time that he/she is present in the instruction room or office.
- C. The custodian is responsible for control of common areas, i.e. halls, cafeteria, etc.
- D. Since the custodian is typically the last person to leave a facility in the evening, he/she is responsible for verification of the nighttime shutdown.
- E. The facility administrator is responsible for the total energy usage of his/her facility.
- F. The Energy Education Specialist provides regular (at least semi-annual) program update reports to the Board.
- G. The Energy Education Specialist performs routine audits of all facilities and communicates the audit results to the appropriate personnel.
- H. The Energy Education Specialist is responsible for either directly or indirectly making adjustments for the Organization’s Energy Management System (EMS), including temperature settings and run times for Heating, Ventilation and Air Conditioning (HVAC) and other controlled equipment.
- I. Administration will regularly communicate the importance and impact of energy conservation to its internal and external constituents.
- J. The Energy Education Specialist provides monthly energy savings report to facility administrators detailing performance results.
- K. The organization is committed to and responsible for a safe and healthy learning environment.
- L. To complement the organization’s behavioral based energy conservation program, the organization shall develop and implement a preventative maintenance and monitoring plan for its facilities and systems, including HVAC, building envelope, and moisture management.

## II. General

- A. 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).
- B. Proper and thorough utilization of data of 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.
- C. All exhaust fans should be turned off daily.
- D. All office machines (copy machines, laminating equipment, etc.) shall be switched off each night and during unoccupied times. Fax machines should remain on.
- E. All computers should be turned off each night. This includes the monitor, local printer, and speakers. Network equipment is excluded.
- F. All capable PC's should be programmed for the "energy saver" mode using the power management feature. If network constrains restrict this for the PC, ensure the monitor "sleeps" after 10 minutes of inactivity.
- G. Set points are in accordance with ASHRAE 55 "Thermal Conditions for Human Occupancy"
  - a. Cooling Seasons Occupied Set Points: 74°F - 78°F
  - b. Unoccupied Set Point: 85°F
  - c. Heating Season Occupied Set Points: 68°F - 72°F
  - d. Unoccupied Set Point: 55°F

## III. Air Conditioning Equipment

- A. Occupied temperature setting shall NOT be set below 74°F.
- B. During unoccupied times, the air conditioning equipment shall be off. The unoccupied period begins when the student leave the area at the end of the 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.
- C. Air conditioning start time may be adjusted (depending on weather) to ensure instruction room comfort when instruction begins.
- D. Ensure outside air dampers are closed during unoccupied times.
- E. Ceiling fans should be operated in all areas that have them.
- F. Relative humidity levels shall not exceed 60% for any 24 hour period.
- G. 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.

- H. 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. 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.
- I. Ensure dry food storage areas are maintained within code requirements. Typically, this is 55F-75F temperature and 35% -60% Relative Humidity. Utilize loggers to verify.

#### **IV. Heating Equipment**

- A. Occupied temperature settings shall NOT be above 72° F.
- B. The unoccupied temperature setting shall be 55°F (i.e. setback). This may be adjusted to a 60°F setting during extreme weather.
- C. The unoccupied time shall begin when the students leave an area.
- D. During the spring and fall when there is no threat of freezing, all steam and forced air heating system should be switched off during unoccupied times. Hot water heating systems should be switched off using the appropriate loop pumps.
- E. Ensure all domestic hot water systems are set no higher than 120°F or 140°F for cafeteria service (with dishwasher booster).
- F. Ensure all domestic hot water re-circulating pumps are switched off during unoccupied times.
- G. For heat pumps, ensure a 6°F dead-band between heating and cooling modes.
- H. Heating oil and propane (of 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.

#### **V. Lighting**

- A. 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.
- B. All outside lighting shall be off during daylight hours.
- C. Gym lights should not be left on unless the gym is being utilized.
- D. All lights will be turned off when students and staff leave for the day. Custodians will turn on lights only on the areas in which they are working.

- E. Refrain from turning lights on unless definitely needed. Remember that light 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.

## **VI. Water**

- A. Ensure all plumbing and/or intrusion (i.e. roof) leaks are reported and repaired immediately.
- B. Grounds watering should only be done between 4am – 10am. DO not water during the heat of the day, typically between 10am – 8pm.
- C. When spray irrigating, ensure the water does not directly hit the facility.
- D. Consider installing water sub-meters on irrigation and cooling tower supply lines to eliminate sewer charges.

Disclaimer: The organization shall adopt, observe and implement these guidelines as provide. However these guidelines are not intended to be all-inclusive, and they may be modified for local conditions. These guidelines supersede al previous instructions related to energy conservation or facility management.