

# CROWLEY ISD ADMINISTRATIVE REGULATION

**Board Policy: CL (Legal)**

**Date Effective: July 14, 2009**

**Date Revised: August 2013**

## **Re: Reduction of Energy Consumption**

In order to re-direct funds for the education of our children and comply with Board Policy we are aggressively implementing an energy management plan. The primary objective of an effective management plan is to eliminate or significantly reduce energy consumption and control costs while maintaining a comfortable and safe learning environment. The campus administrative staff, campus energy coordinators and district directors will be responsible for implementing these guidelines through the direction of the Energy Manager. The fulfillment of this regulation must be the joint responsibility of the Board of Trustees, CISD employees, students, and stakeholders of Crowley Independent School District. An Energy Coordinator will be designated by each campus to help ensure the following guidelines are followed.

### **I. HVAC Operations**

#### **A. Occupied set points:**

Occupied temperature settings will be set to maintain the temperature between 72° and 76° Fahrenheit for cooling and 68° and 72° Fahrenheit for heating. The set point ranges will be utilized for permanent and temporary time schedules. In the event a space temperature is out of the mandated range the head custodian will call the maintenance department to report the problem. (See Exhibit A)

#### **B. Unoccupied set points:**

Nights, weekends, and unoccupied schedules will have the temperature maintained at 55° for heating and 85° for cooling.

#### **C. Occupied run times:**

All permanent and temporary time schedules are processed through the Maintenance Department and routed to the Energy Manager. Permanent schedules provide for conditioned air when employees, whether contract or Para-professional, are scheduled for duty. Heating and air conditioning occupied run times will be in conjunction with the normal operating schedule of the facility or campus. Run times will be set to operate one hour prior through one half hour after normal building work schedules. See Administrative Regulation DK for work schedules.

#### **D. General Guidelines for After Hours HVAC Use**

1. All requests for additional heating or cooling must be made a minimum of 72 hours in advance through the Maintenance Department using the Eduphoria system and entering the request under Facilities and Events.

2. Special consideration should be given to the location of summer school classes and programs to ensure the most cost-effective operation of the cooling equipment. Summer school and summer program locations shall be coordinated with the Energy Manager and approved by the Executive Director of Non-Instructional Services.

## **E. Portable Buildings and Remote Facilities**

The HVAC guidelines include all portable buildings and facilities with stand alone locally controlled thermostats. Special attention should be given by faculty and custodial staff ensuring remote heating and air conditioning units are turned off at the end of the work day.

## **II. Guidelines for Operating HVAC**

A. Keep all doors and windows closed when heating and air conditioning units are being used.

B. If a space temperature is outside the set guidelines, inform the lead custodian or designee and they, in turn, will notify the maintenance department and submit a work order.

C. Campuses approving facility usage should utilize the smallest comfortable space available and follow the GKD (Local) Administrative Regulation. For example: using the library instead of the gym or a classroom instead of the cafeteria.

## **III. Guidelines for Operating Lighting**

A. Turn off the lights anytime an area will be unoccupied for 15 minutes or more.

B. Custodians and building staff are encouraged to use the lowest amount of light needed when classrooms are unoccupied by students or when natural daylight can be used.

C. Gymnasium lighting that must warm up for several minutes should be turned on no more than 15 minutes prior to use. If the lights are not needed for more than one class period at a time, turn them off. This particular type of lighting should not be switched frequently due to the long start-up time. Custodians should utilize wall mounted fluorescent lighting where available to clean gyms and avoid using overhead high bay fixtures.

D. All outside lighting shall be kept off during day light hours.

E. Lighting for trophy cases and bulletin boards should be turned off at night.

F. Evening custodians should only turn on lights in the specific area where they are working. Lighting in hallways should be set to minimum levels during night cleaning. Lights in custodial/maintenance areas should be kept off except when occupied. The district will install motion sensors or timers in select areas where appropriate as funds are available.

G. Portable lamps used in classrooms, offices, and computer rooms shall only utilize compact fluorescent energy saving bulbs.

## **IV. Guidelines for Summer/Winter and Spring Break Shut Down**

### **A. HVAC Scheduling:**

1. Campuses will be supplied heating and air conditioning when occupied by personnel during work calendar periods such as summer school.

2. Custodians can be supplied heating and air conditioning in areas being cleaned or that require extra ventilation. The cleaning schedule should be condensed to utilize zoning of air conditioning units where feasible.

3. Kitchens will be supplied heating and air conditioning when occupied for the start of school or when supporting educational or approved community functions.

#### **B. Miscellaneous:**

1. The custodians shall turn off all interior, decorative and canopy lighting. Exit, security, and emergency lights will remain on.

2. The maintenance department will turn off electric and gas water heaters and associated pumps.

3. Campus personnel will turn off all business machines and computers, except those which are vital to district network operations.

4. Custodians will disconnect all vending machines in areas not being utilized.

5. The maintenance department will unplug or turn off breakers to all water coolers that are easily accessible and feasible except for one at each school.

6. Plumbing problems such as dripping faucets, running toilets and water leaks noticed by anyone should be reported to the maintenance department.

7. Physical education teachers and coaches should turn off all score boards.

8. The maintenance department will turn off restroom exhaust fans.

#### **V. Irrigation/Water Conservation**

Irrigation systems are designed to supplement rainfall and not be primary water for our grounds. Due to hot Texas summers or drought conditions this is not always the case.

Water conservation involves 2 elements:

A. To conserve water

B. To maintain plant life.

All campus irrigation systems, including athletic fields, will be under the control of the Executive Director of Non-Instructional Services and coordinated with the Energy Manager.

#### **VI. General Guidelines for Energy Conservation**

A. Periodic inspections of all outdoor mechanical lighting timers will be checked for proper operation and proper time settings by the maintenance department.

B. All electric hot water heaters supplying campus restrooms equipped with timers which will not have an effect on after hours programs will be set to go off at 4:00 P.M. and set to come on at 6:00 A.M.

C. Lower the temperature of hot water heaters. Settings are as follows: (a) Water heaters for kitchen utensil and equipment sanitation will be 140° Fahrenheit at the faucet. (B) Other water heaters for general use will be set no higher than 120° Fahrenheit.

D. Use of hot water circulation pumps shall be examined on a unit by unit basis and determined if necessary for daily use. If not required, pump will be turned off and used only for a period of specific demand.

E. Regular energy audits will be conducted by the Energy Manager and reports will be provided to the Director of Maintenance and Executive Director of Non-Instructional Services.

F. Turn off computers, printers and any other electronic devices when not in use after hours, except those that are vital to district network functions. It is not necessary to turn off laser printers or copiers.

G. Principals and/or campus energy coordinators will provide energy awareness briefings in staff meetings. The campus administrative staff will also conduct periodic energy conservation inspections with approved form (see exhibit B) for compliance with guidelines and provide feedback to the Energy Manager. Campuses should incorporate energy conservation into student curriculum using programs such as Watt Watchers.

H. Exit signs and emergency lights shall be left on inside the school at all times.

I. De-lamp all vending machines and turn units off at specific times. This will to be set up with the vending company.

J. Use of personal electrical appliances such as microwaves and coffee pots are discouraged. Space heaters are strictly prohibited due to safety reasons. Personnel may retain their small refrigerators at a cost of \$40 per unit, per year. (See Exhibit C) The permit shall be renewed annually by the end of September. An application shall be submitted with payment to the CISD Office of School Operations. (See Exhibit D) A sticker issued by the district shall be prominently displayed on the refrigerator as evidence of compliance. (See Exhibit C)

K. Recommended illumination levels, as adopted by the Texas Education Agency and established by the Illumination Engineering Society shall be maintained throughout the district and monitored by the Energy Manager.

Exhibit A: Recommended Temperature Range Tables

Exhibit B: Energy Conservation Audit

Exhibit C: Personal Refrigerator Permit Procedures

Exhibit D: Permit for Personal Refrigeration

**Recommended Temperature Range Tables**

**Table 1. Examples of acceptable operative temperature ranges based on comfort zone diagrams in ASHRAE Standard-55-2004**

<b><u>Conditions</u></b>	<b><u>Acceptable operative temperatures</u></b>	
	<u>°C</u>	<u>°F</u>
<b><u>Summer</u></b>		
<u>Relative humidity 30%</u>	<u>24.5 – 28</u>	<u>76 – 82</u>
<u>Relative humidity 60%</u>	<u>23 – 25.5</u>	<u>74 – 78</u>
<b><u>Winter</u></b>		
<u>Relative humidity 30%</u>	<u>20.5 – 25.5</u>	<u>69 – 78</u>
<u>Relative humidity 60%</u>	<u>20 – 24</u>	<u>68 – 75</u>

Energy Audits	
<b>A General Building Audit</b>	
<b>To Be Performed by Energy Manager or Campus Representative</b>	
Campus _____	
Date _____	
Audit performed by _____	
Time _____	
<b>Inside Audit</b>	
	<b>Area or Room</b>
Office machines left on when not in use or after-hours	
The presence or use of any electrical equipment not needed for instruction	
Unacceptable equipment - unregistered refrigerators , personal heaters	
Equipment of which use is discouraged - pole lamps,microwaves , fans	
Electronics (computers , etc.) must be located away from thermostats	
Check automatic shut-off on hand dryers	
Exhaust fans running in unoccupied areas or unoccupied times	
Lights off in unoccupied areas or unoccupied times	
Check for incandescent bulbs	
Check for broken or missing thermostat guards	
Inside gym doors kept closed	
Vending machines unplugged after -hours	
Check for dirty HVAC supply and return grills	
Check for any unnecessary equipment in air handler rooms	
Thermostats and return air grills not blocked	
HVAC in portables turned to unoccupied setting or off , after hours	
Water left running in bathrooms	
Water leaks or drips (sinks , faucets , drinking fountains , laboratories)	
HVAC left on after hours not controlled by EMS	
Use of one-half hall lights where practical	
Check for any areas that can utilize daylighting	
Check for any space temperatures that are abnormally high or low	
Compare HVAC air flow from one space to another	
Check for HVAC eqpt. Running in unoccupied space	
Check for HVAC eqpt. Operating after - hours not that is not commanded by night setback temperature	
Minimize decorative lighting and showcase lighting	
Explore use of blinds or curtains to reduce heat load	
Computers, monitors and printers left on when not in use or afterhours	

Underfloor check	
	Area or Room
Water line leaks (domestic or chilled water)	
Waste water leaks	
Broken or loose pipe hangers	
Lights left on or burned out	
Insulation torn or missing	
Fan coil heaters leaking water	
Disconnected conduit or exposed wiring	
Check for unusual dampness	
Outside and Building Envelope Check	
	Area or Room
Exterior doors and windows kept closed	
Outside door closers function properly and doors seal properly	
Check for irrigation and water line leaks	
Check for sprinklers hung on	
Parking lot lights and outside building lights still on after daylight	
Hose bibs leaking	
Check for windows broken or needing to be re-sealed	
Explore use of trees or shrubs to reduce heat load on west side of bldg.	

Energy Management Audit Form by Room									
Campus									
Auditor									
Date									
Room or Area	Lamps	Refrigerator	Heater	Microwave	Lights	Water Leak	Computers,Electronics	Other	
1									
2									
3									
4									
5									
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**CROWLEY ISD**  
**PERSONAL REFRIGERATOR PERMIT PROCEDURES**

1. Refrigerator permit applications must be submitted annually by the end of September.
2. Each campus administration office will be sent an electronic copy of the Refrigerator Permit Application form.
3. All transactions will need to be handled through the campus administration office and the Office of Non-Instructional Services.
4. Personnel wanting a refrigerator in their classroom will need to complete a Refrigerator Permit Application form and submit to their campus administration office along with a \$40.00 check or money order payable to Crowley ISD.
5. The campus administration office will then send the application and payment via inter-office mail to the Office of Non-Instructional Services, Attention: Bill Ownbey.
6. Once processed, the Office of Non-Instructional Services will return a receipt for payment along with the refrigerator permit.
7. The permit will need to be affixed to the front upper-left corner of the refrigerator unit (a sample picture will accompany the receipt and permit).
8. It will be the responsibility of each campus Principal to confirm and maintain compliance.
9. Some exceptions may apply. If you have a refrigerator that will be used for District purposes (i.e. nurse, athletic training room, special education, etc.) please notate this on your application and have it approved by the campus principal. A separate permit sticker will be issued and the \$40.00 annual fee will be waived.

**CROWLEY ISD  
PERMIT FOR PERSONAL REFRIGERATOR**

- The CISD requires employees to purchase a **\$40.00** annual permit (Renewal due by the end of September) to cover the additional energy cost incurred from personal refrigerators.
- All transactions for the purchase and issuance of permits should be coordinated through the campus administration office.
- Please ***DO NOT SEND CASH*** for permits – we will accept checks or money orders.
- All personal refrigerators must have a current school year permit sticker affixed to the front upper-left corner to be in compliance.

**Complete the application below and return with payment to:**

**CISD OFFICE of NON-INSTRUCTIONAL SERVICES**

Attn: Bill Ownbey

**REFRIGERATOR PERMIT APPLICATION**

Campus Name \_\_\_\_\_ School year \_\_\_\_\_

Campus Org. Code \_\_\_\_\_ Date of Request \_\_\_\_\_

Applicant's Name \_\_\_\_\_

Refrigerator Location (Room #) \_\_\_\_\_

**\*\*\* Make Check or Money Order Payable to CROWLEY ISD \*\*\***

<i>For Office Use Only</i>
Paid by: Check # _____
Money Order # _____
Permit Number: _____
Authorized by: _____
Date: _____