

CITY OF APPLETON PERSONNEL POLICY	TITLE: ENERGY CONSERVATION/SUSTAINABILITY	
ISSUE DATE: 2007	LAST UPDATE:	SECTION: Facilities & Construction Management
POLICY SOURCE: Facilities & Construction Management Department	AUDIENCE: All Departments	TOTAL PAGES: 4
Reviewed by Attorney's Office Date: August 29, 2007	Finance Committee Approval Date: September 26, 2007	Council Approval Date: October 3, 2007

I. PURPOSE

The purpose of this policy is to establish the requirements for an energy management program:

- A. To realize the greatest return from every dollar expended on energy resources and increase the efficient use of energy, water and fuels;
- B. To increase energy awareness and efficient management among facilities occupants in regards to natural gas, fuel oil, electricity and water;
- C. And to be an example to the community of progressive environmental stewardship.

The resulting efficiency increase and monetary savings will help offset rising energy costs and provide resources for further energy conservation initiatives.

II. POLICY

Faced with continually increasing energy costs and limited operating funds, we must use all available means to reduce our energy costs and increase efficiency. In addition, the City will consider the use of sustainable products when feasible to reduce environmental impacts.

III. DISCUSSION

The City of Appleton consumes significant amounts of energy in its operation of facilities and equipment. The Facilities & Construction Management Department is committed to supporting and adding emphasis to energy management and conservation initiatives.

The Facilities & Construction Management Department attempts to maintain a reasonable balance between operational requirements and energy conservation. The City's ability to

maintain this balance through investments in energy efficient equipment and building components is further constrained by available resources. Accordingly, the following guidelines for utility management will be implemented to best support the mission and key strategies of the City of Appleton. The Director of Facilities & Construction Management will review any deviations from these guidelines.

- A. Reduce energy costs, eliminate waste, and conserve energy resources by using energy-efficient and cost-effective technology.
- B. Incorporate energy efficiency into the decision-making process during the design and acquisition of facilities and equipment emphasizing the use of renewable energy sources. Projects/systems with payback periods of less than five (5) years will be considered feasible as an energy-wise project.
- C. Increase energy efficiency through capital investment and/or improved operations.
- D. Establish partnerships with local utilities and state resources to provide technical assistance and to share costs on energy conserving initiatives to the extent possible.

IV. DEFINITIONS

Commissioning – is the process for achieving, verifying and documenting the performance of a facility or facility equipment. It is used to determine whether the systems within the facility meet the design intent, but also the functional and operational needs of the personnel it serves.

Relative Humidity (RH) – is a ratio, expressed in percent, of the amount of atmospheric moisture present relative to the amount that would be present if the air were saturated. Since the latter amount is dependent on temperature, relative humidity is a function of both moisture content and temperature. A higher RH will make it feel warmer than a lower RH.

Sustainability – means seeking solutions that simultaneously improve social, economic, and environmental vitality.

V. PROCEDURES

A. Operations

In many instances temperature management of indoor environments is governed by central controls monitored by Facilities & Construction Management Department staff. Building occupants can, however, contribute to their own comfort by wearing seasonal clothing and by making sure that windows, shades and blinds work and are positioned for the season. The human sense of comfort changes seasonally. According to the Northwest Energy Efficiency Council, 10% of occupants are likely

to be dissatisfied as a result of the variance in a person's comfort level, regardless of the conditions.

City of Appleton target temperatures are as follows:

Winter – (68-74 degrees) 20-30% RH

Summer – (74-78 degrees) 50-60% RH

Heating Season: The targeted temperature for most workspaces is 68 degrees Fahrenheit. Due to building characteristics and control limitations, actual temperatures will vary. Temperatures in storerooms, hallways, stairwells and other unoccupied areas will be kept in the 68 degree Fahrenheit range to the extent possible. In cases where central heating cannot meet targets, electric heaters are allowed with the authorization of the Director of Facilities & Construction or his/her designee. These devices can be dangerous when misused, and will be allowed only under controlled circumstances. Windows will not be opened during the winter to cool spaces. The Facilities & Construction Management Department will be notified as soon as possible when heating equipment is not performing adequately and will make the repair as quickly as possible.

Cooling Season: In areas where air conditioning systems have been installed, the targeted temperature will be 74 degrees Fahrenheit. In areas where large numbers of people may assemble, the pre-event target may be reduced to facilitate the occupant heat load. Due to building characteristics and control limitations, actual temperatures may vary from the target.

Electric fans to supplement central cooling are allowed only with the authorization of the Director of Facilities & Construction or his/her designee. These devices can pose additional hazards, and will be allowed only under controlled circumstances.

Ventilation: Areas equipped with ventilation systems will be operated in the most economical way possible, consistent with the Occupational Safety and Health Administration requirements and the comfort and safety of building occupants. During times of reduced occupancy, the cycling of fans or the reduction of fan speeds will be employed where possible to conserve energy. If possible, systems will be shut off entirely during periods of minimal or no use.

Lighting: Adequate lighting for interior and exterior use is essential, but must be provided in an energy efficient manner. Fluorescent lighting will be used whenever possible, utilizing lamps and electronic ballasts employing the latest energy efficient technology feasible. Desk lamps are not supplied to every work area, but are acceptable for use as needed. Lighting in all cases will be turned off whenever it is no longer required by the room or facility occupants. The occupants of the facility will be responsible for turning off energy consuming devices whenever possible to conserve resources.

Water Usage: Individuals will take care to use water sparingly, and to be sure to completely turn off water spigots after use. Report leaking taps or valves to the Facilities Manager.

Transportation: Racks will be provided at stand-alone facilities to promote the use of bicycles to reduce the need for additional parking, promote health and to consider the effects on the environment.

B. Sustainability

City facilities must be financially viable to operate, easy to maintain, durable, and they must contribute to the productivity and well-being of those people who work in and visit City facilities. City facilities should model the responsible stewardship of natural and financial resources with the goal of long-range thinking that leads to facilities that minimize environmental impact, save operation and maintenance costs, and promote health and well-being. When facility renovations and/or construction are necessary, the City will consider the following through all stages of design, construction and operation:

1. Economic Impact
 - a. Total cost of occupancy
 - b. Durability, flexibility and maintenance needs
2. Environmental Impact
 - a. Site, water and material resources
 - b. Energy and atmosphere
3. Social Impact
 - a. Human health and potential (productivity)
 - b. Community impact

C. Commissioning

On major projects commissioning will be implemented. An independent commissioning agent not provided by the contractor will conduct commissioning.