

**Beverly A. H. Buscemi, Ph.D.**  
*State Director*  
**David A. Goodell**  
*Associate State Director*  
*Operations*  
**Susan Kreh Beck**  
*Associate State Director*  
*Policy*  
**Thomas P. Waring**  
*Associate State Director*  
*Administration*



3440 Harden Street Ext (29203)  
PO Box 4706, Columbia, South Carolina 29240  
803/898-9600  
Toll Free: 888/DSN-INFO  
Website: [www.ddsn.sc.gov](http://www.ddsn.sc.gov)

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Applicability: DDSN Facilities

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1. Purpose:

Energy management systems installed in DDSN Regional Residential Centers or individual buildings are intended to regulate heating/cooling requirements in buildings to provide optimum indoor comfort levels while achieving cost savings through management of energy demands. Energy management systems have been installed at the four DDSN Regional Centers and have the capability to control individual HVAC equipment as well as other energy management techniques for conservation of energy. The intent of this policy is to set parameters for controlling building heating and cooling within approved and acceptable limits. It is the intent of this policy to prescribe energy management measures in nonresidential buildings. Residential buildings should maintain optimum temperatures 24 hours per day. Residential buildings shall be monitored only and have optimum temperature set limits controlled by the energy management system. Individual buildings may require adjustments based on the needs of the individuals living there. To achieve the goals of energy management while maintaining an indoor environment at acceptable comfort levels, the operations guidelines contained in this directive are to be enacted.

**DISTRICT I**

P.O. Box 239  
Clinton, SC 29325-5328  
Phone: (864) 938-3497

Midlands Center - Phone: 803/935-7500  
Whitten Center - Phone: 864/833-2733

**DISTRICT II**

9995 Miles Jamison Road  
Summerville, SC 29485  
Phone: 843/832-5576

Coastal Center - Phone: 843/873-5750  
Pee Dee Center - Phone: 843/664-2600  
Saleeby Center - Phone: 843/332-4104

2. Definitions:

Acceptable Temperature Limits:

The ranges of indoor temperatures for heating and cooling seasons which are considered acceptable for habitation in the workplace. For the heating season the acceptable temperature limits are 66 degrees Fahrenheit to 70 degrees Fahrenheit. For the cooling season the acceptable temperature limits are 74 degrees Fahrenheit to 78 degrees Fahrenheit.

Non-Residential:

Any building not used for living, eating and sleeping. Buildings used for programs, education, recreation, office, and other support activities are considered non-residential.

Optimal Start:

The time at which the energy management system switches from night set-back to normal operational mode in order to heat or cool the building to the set temperature at the beginning time of normal business hours. The energy management system uses the outdoor temperature to compute the “optimal” start time.

Residential:

A building is considered residential when it is used primarily for living, eating and sleeping. For the purposes of energy management, an infirmary, or hospital is considered residential.

3. Procedure:

A. Setback Temperature Limits:

All non-residential buildings shall have temperature limits modified during nighttime, weekend, and holiday hours of non-use. Setback temperature limits shall be 55 degrees Fahrenheit (60 degrees Fahrenheit for heat pump systems) during the heating season and 85 degrees Fahrenheit during the cooling season. Portions of non-residential buildings used 24 hours per day may be exempted from the setback requirement.

B. Daytime Temperature Limits:

All non-residential buildings shall maintain indoor temperatures between 66 degrees Fahrenheit and 70 degrees Fahrenheit for heating season and between 74 degrees Fahrenheit and 78 degrees Fahrenheit for cooling season.

C. Optimal Start:

The energy management system shall utilize the “optimal” start time sequences established using outdoor temperature reading. The energy management system, for non-

residential buildings, shall be programmed so that the “optimal” start for heating or cooling will bring the indoor temperature to the set limit at the beginning time of normal business hours.

D. The un-authorized use of portable electric heaters is prohibited. Use of electric supplemental heaters shall be approved only as outlined in Article 4.C.

4. Exceptions:

A. Residential Buildings:

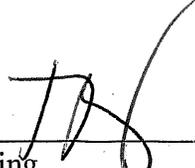
The energy management system is to be utilized to “monitor” indoor temperature in all residential and health care buildings, and to control temperature set points at appropriate limits. The use of the energy management system in these buildings will limit temperature extremes caused by inappropriate use of building thermostats.

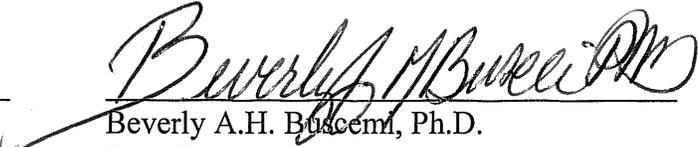
B. Inappropriately Placed Sensors:

In some buildings, sensors may be so located as to not accurately represent the ambient temperature of the area served by HVAC equipment. Air temperature should be checked in several locations throughout the service area to determine the “actual” ambient temperature. Set points for these specific sensor locations may be adjusted above or below the “acceptable” limits of this policy. This should be done on a case-by-case basis for a specific problem. Should large differences be encountered, consideration should be given to relocating the sensors to a more representative location. Temperature settings for non-residential buildings that are outside of the acceptable temperature limits shall be documented as to the reason for the variation, and shall be approved by the Director of Physical Plant.

C. Chronic Temperature Differences:

Buildings or portions of buildings with substantial variance from acceptable temperature limits shall be investigated for possible blockage of air flow or other problems with the HVAC system. The Division of Engineering and Planning is available to assist with troubleshooting equipment and design problems. Auxiliary equipment such as fans and electric heaters may be used as a temporary measure in areas of chronic temperature differences, but use of such equipment must be reviewed by the Director of Physical Plant and approved on a case-by-case basis. Use of such equipment should be for a limited period of time until a permanent correction of the HVAC system is completed.

  
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Tom Waring  
Associate State Director-Administration  
(Originator)

  
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Beverly A.H. Buscemi, Ph.D.  
State Director  
(Approved)