

BSR/ASHRAE Addendum e  
to ANSI/ASHRAE Standard 135-2004

# Public Review Draft

ASHRAE® Standard

## Proposed Addendum e to Standard 135-2004, *BACnet*®—A *Data Communication Protocol for Building Automation and Control Networks*

Second Public Review (March 2006)  
(Draft Shows Proposed Changes to  
Previous Public Review Draft)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed addendum, use the comment form and instructions provided with this draft. The draft is subject to modification until it is approved for publication by the responsible project committee, the ASHRAE Standards Committee, and the Board of Directors. Then it will be submitted to the American National Standards Institute Board of Standards Review (BSR) for approval. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE web site) remains in effect. The current edition of any standard may be purchased from the ASHRAE Bookstore @ <http://www.ashrae.org> or by calling 404-636-8400 or 1-800-527-4723 (for orders in the U.S. or Canada).

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**[This foreword and the “rationale” on the following page are not part of this standard. They are merely informative and do not contain requirements necessary for conformance to the standard.]**

## **FOREWORD**

### **Foreword to the Second Public Review Draft of Addendum 135e to ANSI/ASHRAE Standard 135-2004**

This second public review draft of Addendum 135e to ANSI/ASHRAE Standard 135-2004 contains a number of independent substantive changes to the first public review draft. Changes to the existing clauses of the first public review draft are indicated through the use of *italics*, while deletions are indicated by ~~strikethrough~~. Only this new and deleted text is open to comment at this time. All other material in this addendum is provided for context only and is not open to public review comment except as it relates to the proposed changes.

Clauses to which no changes have occurred in this second review have been removed from this draft entirely.

Comments on changes outside the scope of this review may be submitted but will be considered solely at the discretion of the project committee. Comments pointing out typographical or editorial errors, regardless of location in the proposed addendum, are always welcome.

The overall purpose of Addendum e is summarized below:

135-2004e-1. Add a new Load Control object type, p. 1.

These modifications are the result of change proposals made pursuant to the ASHRAE continuous maintenance procedures and of deliberations within Standing Standard Project Committee 135.

### 135-2004e-1. Add a new Load Control object type.

#### Rationale

There is need for a standard object type to allow a standard means for providing external control over load shedding.

#### Addendum 135-2004e-1

[Revise **Clause 12.17.12**, which was added in the first public review, as shown below]

##### 12.17.12 *Shed\_Duration*

This property, of type Unsigned, indicates the duration of the load shed action, starting at *Start\_Time*. The units for *Shed\_Duration* are minutes. If no shed request is pending or active, *Shed\_Duration* shall contain wildcard values. If a load control command has been issued, and execution of the command has completed, *Shed\_Duration* shall be reset by the device to contain wildcard values. ~~A load control command may be issued without *Shed\_Duration* being set to indicate an indefinite length load shed request.~~

[Revise **Clause 12.17.15**, which was added in the first public review, as shown below]

##### 12.17.15 *Full\_Duty\_Baseline*

This property, of type REAL, indicates the baseline power consumption value for ~~this device~~ *the sheddable load controlled by this object*, if a fixed baseline is used. Shed requests may be made with respect to this baseline, that is, to “percent of baseline” and “amount off baseline”. The units of *Full\_Duty\_Baseline* are kilowatts.

[Revise **Clause 12.17.18**, which was added in the first public review, as shown below]

##### 12.17.18 *Shed\_Levels*

This property is a BACnetARRAY of unsigned integers representing the shed levels for the LEVEL choice of BACnetShedLevel that have meaning for this particular Load Control object. When commanded with the LEVEL choice, the Load Control object shall take a shedding action described by the corresponding element in the *Shed\_Level\_Descriptions* array. If the Load Control object is commanded to go to a level that is not in the *Shed\_Levels* array, it shall *go to the Shed\_Level whose entry in the Shed\_Levels array has the nearest numerically lower value.* ~~go to the level with the nearest lower value defined in *Shed\_Levels*.~~ The elements of the array are required to be writable, allowing local configuration of how this Load Control object will participate in load shedding for the facility. This array is not required to be resizable through BACnet write services. The size of this array shall be equal to the size of the *Shed\_Level\_Descriptions* array. *The behavior of this object when the *Shed\_Levels* array contains duplicate entries is a local matter.*

[Revise Table 13-1 as shown below to move the Load Control Object, which was added in the first public review, to the correct alphabetical position in the table. This change is editorial.]

**Table 13-1. Standardized Objects That May Support COV Reporting**

| Object Type             | Criteria  | Properties Reported  |
|-------------------------|---|--|
| ...                     |   |  |
| <i>Load Control</i>     | <i>If Present_Value, Requested_Shed_Level, Start_Time, Shed_Duration, or Duty_Window changes at all</i>       | <i>Present_Value, Status_Flags, Requested_Shed_Level, Start_Time, Shed_Duration, Duty_Window</i>     |
| Loop                    | If Present_Value changes by COV_Increment<br>or<br>Status_Flags changes at all                                | Present_Value, Status_Flags,<br>Setpoint,<br>Controlled_Variable_Value                               |
| <del>Load Control</del> | <del>If Present_Value, Requested_Shed_Level, Start_Time, Shed_Duration, or Duty_Window changes at all</del>   | <del>Present_Value, Status_Flags, Requested_Shed_Level, Start_Time, Shed_Duration, Duty_Window</del> |
| Pulse Converter         | If Present_Value changes by COV_Increment<br>or<br>Status_Flags changes at all<br>or<br>If COV_Period expires | Present_Value, Status_Flags,<br>Update_Time  |
| ...                     |   |  |