

**INTERPRETATION IC 90.1-2001-2 OF  
ANSI/ASHRAE/IESNA STANDARD 90.1-2001  
Energy Standard for Buildings Except Low-Rise Residential Buildings**

Revision Approved: April 22, 2002

Originally issued as interpretation of Standard 90.1-1999 on February 6, 2000 (IC 90.1-1999-3), but revised based on the publication of 90.1-2001. Revisions made to all Background, Question and Answer statements to reflect Standard 90.1-2001 language.

**Request from:** Mark Hydeman, Taylor Engineering, 1305 Marina Village Parkway, Alameda, CA 94501

**Reference:** This request for interpretation relates to the water heater requirements in Section 7.2.2 and Table 7.2.2 in ANSI/ASHRAE/IESNA Standard 90.1-2001.

**Background:** In Table 7.2.2, the variable  $V$  used in determining standby loss ( $SL$ ) limitations is defined to be equal to the “rated” volume. This distinction is not clear in two other instances where water heater storage volume is referenced:

- The exception to 7.2.2 states in part: “All water heaters, hot water storage tanks, and hot water supply boilers having more than 140 gal (530L) of storage capacity are not required...”
- Product categories in Table 7.2.2 are determined in part by the input-to-volume ratio, equal to the input energy to the water heater divided by its volume.

In these two cases, it is not clear whether the volume or capacity referred to is the measured or the rated volume of the storage tank.

**Interpretation:** Mr. Hydeman offers the following interpretations:

1. The “storage volume” in the Exception to 7.2.2 is the measured volume.
2. The volume used to determine the input-to-volume ratio in Table 7.2.2 is the rated volume.

**Question:** Are these interpretations correct?

**Answer:** Yes.

**Comment:** None.