

**ERRATA SHEET FOR THE 2006 SUPPLEMENT TO
ANSI/ASHRAE/IESNA STANDARD 90.1-2004
Energy Standard for Buildings Except Low-Rise Residential Buildings**

August 21, 2008

The corrections listed in this errata sheet apply to the first printing of the 2006 Supplement to ANSI/ASHRAE/IESNA Standard 90.1-2004, identified on the outside back cover of the supplement as “PC 5/06”. The shaded item has been added since the previously published errata sheet dated March 12, 2008 was distributed.

NOTICE: ASHRAE now has a list server for Standing Standards Project Committee 90.1 (SSPC 90.1). Interested parties can now subscribe and unsubscribe to the list server and be automatically notified via e-mail when activities and information related to the Standard and the User’s Manual is available. To sign up for the list server please visit **Project Committee List Servers for Standard** on the Technology / Standards section of the ASHRAE website at <http://www.ashrae.org/publications/detail/15620>.

Page(s) Erratum

13 - 15 **Addendum f to 90.1-2004.** Revise Tables 6.8.1A and 6.8.1B in Addendum f to 90.1-2004 as follows:

Note: Deletions shown in strikethrough.

TABLE 6.8.1A (I-P units)

Small duct high-velocity, air-cooled	<65,000 Btu/h^c	All	Split system	10 SEER
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TABLE 6.8.1B (I-P units)

Small duct high-velocity (air-cooled, cooling mode)	<65,000 Btu/h^e	All	Split system	10 SEER
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Small duct high-velocity (air-cooled, heating mode)	<65,000 Btu/h^e (cooling capacity)	—	Split system	6.8 HSPF
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TABLE 6.8.1A (SI units)

Small duct high-velocity, air-cooled	<19kW^c	All	Split system	2.93 SCOP
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TABLE 6.8.1B (SI units)

Small-duct high-velocity (air-cooled, cooling-mode)	< 19 kW ^e	All	Split system	2.93 SCOP
Small-duct high-velocity (air-cooled, heating-mode)	< 19 kW ^e (cooling capacity)	—	Split system	1.99 SCOP _H

67-68 **Addendum ak to 90.1-2004 (I-P and SI Editions).** Replace the current Addendum ak to 90.1-2004 in the 2006 Supplement to ANSI/ASHRAE/IESNA Standard 90.1-2004 with the attached.

Addendum ak to ANSI/ASHRAE/IESNA Standard 90.1-2004

(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Foreword

This addendum originally applied to the changes published in ANSI/ASHRAE/IESNA Addendum b to ANSI/ASHRAE/IESNA Standard 90.1-2001. This addendum adds a third party performance certification testing program to the heat rejection equipment requirements in Table 6.2.1G.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum ak to 90.1-2004 (I-P and SI editions)

Reviewer Note: Delete Section 6.4.1.4(f) as follows:

6.4.1.4 Verification of Equipment Efficiencies. Equipment *efficiency* information supplied by *manufacturers* shall be verified as follows:

~~(f) Products covered in Table 6.8.1G shall have efficiency ratings supported by data furnished by the manufacturer.~~

Reviewer Note: Revise Table 6.8.1G as follows:

In I-P Units

TABLE 6.8.1G Requirements for Performance Heat Rejection Equipment				
Equipment Type	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition	Performance Required^{a b}	Test Procedure^c
Propeller or Axial Fan Cooling Towers	All	95°F Entering Water 85°F Leaving Water 75°F wb <i>Outdoor Air</i>	≥ 38.2 gpm/hp	CTI ATC-105 and <u>CTI STD-201</u>
Centrifugal Fan Cooling Towers	All	95°F Entering Water 85°F Leaving Water 75°F wb <i>Outdoor Air</i>	≥ 20.0 gpm/hp	CTI ATC-105 and <u>CTI STD-201</u>
Air-Cooled	All	125°F Condensing	≥ 176,000	ARI 460

Condensers		Temperature R-22 Test Fluid 190°F Entering Gas Temperature 15°F Subcooling 95°F Entering db	Btu/h·hp	
a	For purposes of this table, cooling tower performance is defined as the maximum flow rating of the tower divided by the fan nameplate rated motor power.			
b	For purposes of this table, air-cooled condenser performance is defined as the heat rejected from the refrigerant divided by the fan nameplate rated motor power.			
c	Section 12 contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.			

In SI Units

TABLE 6.8.1G Requirements for Performance Heat Rejection Equipment				
Equipment Type	Total System Heat Rejection Capacity at Rated Conditions	Subcategory or Rating Condition	Performance Required^{a,b}	Test Procedure^c
Propeller or Axial Fan Cooling Towers	All	35°C Entering Water 29°C Leaving Water 24°C wb Outdoor Air	≥ 3.23 L/s·kW	CTI ATC-105 and <u>CTI STD-201</u>
Centrifugal Fan Cooling Towers	All	35°C Entering Water 29°C Leaving Water 24°C wb Outdoor Air	≥ 1.7 L/s·kW	CTI ATC-105 and <u>CTI STD-201</u>
Air-Cooled Condensers	All	52°C Condensing Temperature R-22 Test Fluid 88°C Entering Gas Temperature 8°C Subcooling 35°C Entering db	≥ 69 COP	ARI 460
a	For purposes of this table, cooling tower performance is defined as the maximum flow rating of the tower divided by the fan nameplate rated motor power.			
b	For purposes of this table, air-cooled condenser performance is defined as the heat rejected from the refrigerant divided by the fan nameplate rated motor power.			
c	Section 12 contains a complete specification of the referenced test procedure, including the referenced year version of the test procedure.			

Reviewer Note: Update the following references in Section 12:

Reference	Title
Cooling Technology Institute, 2611 FM 1960 West, Suite A-101, Houston, TX 77068-3730; P.O. Box 73383, Houston, TX 77273-3383	
CTI ATC-105 – (95) 2000	Acceptance Test Code for Water Cooling Towers
CTI STD-201 – (97) 2002	Standard for the Certification of Water-Cooling Tower Thermal Performance