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Informative Appendix H

Addenda Description Information

ANSI/ASHRAE/IES Standard 90.1-2016 incorporates all addenda to ANSI/ASHRAE/IES Standard 90.1-2013. Table H-1 lists each addendum and describes the way in which the standard is affected by the change. It also lists the ASHRAE, IES, and ANSI approval dates for each addendum.

Table H-1 Addenda to ANSI/ASHRAE/IES Standard 90.1-2013

Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
ab (formerly addendum ab to 90.1-2010)	Table A2.3	Adds a filled cavity metal building roof assembly (R-19+R-11) to Appendix A.	9/16/2014	10/3/2014	7/1/2014	3/2/2015
ac (formerly addendum ac to 90.1-2010)	A9.4	Allows the use of the R-value of an airspace in enclosed cavities with or without insulation (Appendix A). Expands the R-value table in Appendix A (based on 2009 <i>ASHRAE Handbook—Fundamentals</i> , Chapter 26).	9/16/2014	10/3/2014	7/1/2014	10/6/2014
ak (formerly addendum ak to 90.1-2010)	6.5.4.1, 6.5.4.3	Addresses number of issues with hydronic section (6.5.4.1), including removal of the pump power threshold, limiting section 6.5.4.1 to heating and cooling hydronic systems only, lowering and rephrasing the flow limit exception, and other changes.	1/18/2014	1/22/2014	1/15/2014	1/23/2014
bm (formerly addendum bm to 90.1-2010)	Appendix G	Allows the use of Appendix G as compliance path. Formulates methodology for showing compliance with Standard 90.1.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
du (formerly addendum du to 90.1-2010)	6.5.1	Requires water-side economizers for chilled-water systems, including nonfan systems such as radiant cooling or passive chilled-beam systems.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
dx (formerly addendum dx to 90.1-2010)	Tables G3.7, G3.8	Adds changes from pending addenda to 90.1-2010 (addenda co, cr, dl).	7/26/2013	7/30/2013	7/29/2013	7/31/2013
a	3.2, 5.1.2.1	Updates the definition of “conditioned space” and modifies the heated space criteria table.	9/16/2014	10/3/2014	7/1/2014	10/29/2014

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Table H-1 Addenda to ANSI/ASHRAE/IES Standard 90.1-2013 (Continued)

Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
c	8.4	Specifies combined maximum voltage drop (5%) for branch (3%) and feeder (2%) circuits, instead of specifying separate voltage drops for each.	9/16/2014	10/3/2014	7/1/2014	10/6/2014
d	6.3.2, 6.4.3.3	Requires deeper thermostat setback for networked guestrooms or those unoccupied for more than 16 hours. Also requires ventilation to be turned off when guest rooms are unoccupied.	9/16/2014	10/3/2014	7/1/2014	10/6/2014
e	9.1.2	Increases requirements for alterations to existing building lighting systems.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
f	9.4.1.1	Changes an exception to the automatic daylight control requirements for daylight areas under skylights from VT to effective aperture.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
g	Table 6.5.3.1-2	Clarifies interpretation of the equation used for pressure drop adjustment calculation for energy recovery devices.	9/16/2014	10/3/2014	7/1/2014	10/6/2014
h	C3.5.8	Modifies the language in Appendix C to separate fan power from the cooling and heating efficiency calculation.	9/16/2014	10/3/2014	7/1/2014	10/6/2014
i	6.5.1	Eliminates separate cooling capacity thresholds for requiring economizer in computer rooms. Computer rooms will be required to follow the same thresholds as comfort cooling applications.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
j	6.5.3.3	Requires VAV system ventilation optimization even when ERV is installed.	1/28/2015	1/28/2015	1/19/2015	1/29/2015
k	Table G3.1	Requires opaque assemblies in the baseline building to match the descriptions in Appendix A.	1/28/2015	1/28/2015	1/19/2015	1/29/2015
l	4.2.4, 4.2.5, 5.2.1, 5.2.9 (new section)	Adds verification requirements for envelope components, including insulation, fenestration, doors, and air leakage.	6/25/2016	6/29/2016	6/27/2016	9/16/2016
m	10.4.1	Adds text in Section 10.4.1 on electric motors to state the tables that must be followed based on size and type (Tables 10.8-4 and 10.8-5).	1/28/2015	1/28/2015	1/19/2015	1/29/2015
n	Tables 6.8.1-9, 6.8.1-10	Updates IEER values for air-cooled VRF air conditioners and heat pumps above 65,000 Btu/h. The new IEERs are between 15% and 20% more stringent and become effective on January 1, 2017.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
o	6.4.4.2.1	Clarifies the wording regarding duct seal class by removing text to avoid any possible misinterpretation.	1/28/2015	1/28/2015	1/19/2015	1/29/2015
p	Table 6.8.1-7	Adds reference to Cooling Tower Institute Standard CTI STD-201 RS for testing certain equipment types in Table 6.8.1-7.	1/28/2015	1/28/2015	1/19/2015	1/29/2015
q	Table 6.5.3.1-2	Only allows the following systems to use the fan power allowance for fully ducted return and/or exhaust systems: systems required to be fully ducted by code or accredited standards, and systems required to maintain air pressure differentials between adjacent rooms.	5/27/2015	6/4/2015	6/1/2015	6/26/2015

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Table H-1 Addenda to ANSI/ASHRAE/IES Standard 90.1-2013 (Continued)

Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
r	G3.1.1; Table G3.1.1-3	Clarifies the hierarchy for selecting baseline HVAC systems, including what floors to count, and specifies what building type to use when no one use is predominant.	1/28/2015	1/28/2015	1/29/2015	1/29/2015
s	6.5.2.1	Relieves parallel fan-powered box and DOAS with DDC from Section 6.5.2.1, Exception 2, requirements (c) and (d).	1/28/2015	1/28/2015	1/19/2015	1/29/2015
u	6.5.7	Improves wording of transfer air by applying it more broadly than to just kitchen exhaust systems and also by clarifying the sources of transfer air.	6/25/2016	6/29/2016	6/27/2016	6/26/2016
v	5.5.4.5	Deletes Exception 2 of the fenestration orientation requirement for obstructions to south-facing glazing.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
w	3, 4, 5, 6, 9, 12; Appendices A, B, D, E, G; Reference Standard Reproduction Annex 1 (new)	Refers Standard 90.1 to new climatic data based on Standard 169-2013, resulting in changes to climate zone assignments for some locations, the creation of a new Climate Zone 0, and the addition of criteria for Climate Zone 0. ISC: Adds method for rating the SRI of walls with glass spandrel area and adjusts criteria for minimum skylight area in Climate Zone 0.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
z	G3.1.3.1	Modifies modeling of electric auxiliary heat in air-source heat pumps such that they are controlled by an outdoor air thermostat and the heat pump continues to operate while the auxiliary heat is energized.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
aa	Table G3.1	Clarifies which spaces in the proposed design can be modeled without mechanical cooling (Appendix G).	5/27/2015	6/4/2015	6/1/2015	6/26/2015
ad	G3.1.2.4, G3.1.3.19	Specifies baseline systems 5 through 8 to be modeled with a preheat coil.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
ae	3.2, 10.4.1	Updates definition of nameplate horsepower and relates power ratings of smaller electric motors to their output power. Changes are editorial in nature.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
af	Table 7.8	Specifies the rating conditions for measuring the efficiency of heat pump pool heaters.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ag	6.4.3.9	Limits mechanical cooling to 85°F for vestibules, except when the vestibule is tempered with transfer air or heated with recovered energy.	5/27/2015	6/4/2015	6/1/2015	6/26/2015
ah	9.4.1.1	Clarifies that all lighting, including egress lighting on emergency circuits, shall be turned off when the space is unoccupied with 0.02 W/ft ² .	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ai	5.5.4.1; Tables 5.5-0 through 5.5-8	Prescribes lower SHGC for vertical fenestration in Climate Zone 0 and lower U-factors for vertical fenestration in Climate Zones 4 through 8.	6/25/2016	6/29/2016	6/27/2016	6/26/2016
aj	6.5.3.2.1, 6.5.3.2.4	Requires return and relief fans larger than 0.5 hp to have VFD control, to maintain building pressure, and to avoid disabling of economizer operation.	1/23/2016	1/27/2016	12/31/2015	1/28/2016

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Table H-1 Addenda to ANSI/ASHRAE/IES Standard 90.1-2013 (Continued)

Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
al	5.4.3.2	Prescribes air leakage criteria for metal coiling doors in semiheated spaces.	1/23/2016	1/27/2016	12/31/2015	2/24/2016
am	9.4.1.2	Increases the parking garage lighting reduction from 30% to 50% in response to no occupancy, specifies a 50% reduction in lighting power in response to the presence of daylighting, and removes a duplicate exemption.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
an	Table 9.6.1	Removes mandatory local control from restrooms and stairwells.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ao	Table G3.1	Requires humidification systems in the baseline building model to be nonadiabatic in buildings where humidification is required.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
ap	6.5.3	Moves the minimum 5 hp threshold for fan power to individual requirements under Section 6.5.3, as applicable. Clarifies that fan motors smaller than 1 hp have separate requirements. Clarifies that fan power allowance does not apply to relief fans that operate only during economizer mode.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
aq	Tables 6.8.1-1, 6.8.1-2, 6.8.1-5	Updates footnotes in Tables 6.8.1-1, 6.8.1-2, and 6.8.1-5 to state that residential air conditioners, heat pumps, and furnaces are now regulated by the U.S. Department of Energy and not by NAECA. Clarifies that certain efficiencies in the tables only apply to three-phase equipment.	1/23/2016	1/27/2016	12/31/2015	2/24/2016
ar	3.2; Table 6.5.3.1-2, 6.5.6.1, 6.5.7.1.4, 6.5.7.2	Replaces “energy recovery effectiveness” with “energy recovery ratio,” which clarifies the intent of the standard with regard to the performance requirements of air-to-air heat exchangers.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
as	9.4.1.4	Requires luminaires in parking areas with input power greater than 78 W and mounting height less than 24 ft to reduce power by 50% in response to occupancy.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
at	9.4.1.1	Clarifies that the calibration of daylighting controls be performed such that the sensor field of view is not blocked by objects or persons conducting the calibration.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
au	G3.1.3.5, G3.1.3.10, G3.1.3.11	Specifies in greater detail the modeling of hot-water pumps, chilled-water pumps, and heat rejection equipment in the baseline model.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
av	3, 6	Adds the phrase “and be configured to” after the phrase “capable of” throughout the standard. The word “capable” does not guarantee that savings will be achieved, especially in the context of control requirements.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
aw	6.5.6.1	Clarifies and limits the exceptions to exhaust air energy recovery requirements (Section 6.5.6.1).	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ay	5.4.3.1.3	Allows nonadhered single-ply roof membranes to qualify as an air barrier material.	8/24/2016	8/29/2016	9/26/2016	8/30/2016

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Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
az	Appendix G	Appendix G fenestration and skylight glazing fraction set in Appendix G instead of referencing prescriptive requirements.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ba	Appendix G	Changes G1.2.2 end-use load note from informative to mandatory.	1/23/2016	1/27/2016	12/31/2015	2/24/2016
bb	G3.1.2.5	Modifies fan modeling for packaged HVAC.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bc	Tables 5.5.0 through 5.5.8	Revises U-factor criteria for doors.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bd	6.4.3.1.1	Requires large (>1500 ton) chiller plant metering.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
bh	8.4.3.2	Requires DDC metering GUI display.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
bi	6.5.2.6	Limits ventilation air heating (DOAS systems).	6/25/2016	6/29/2016	6/27/2016	6/30/2016
bj	6.5.4.7	Establishes minimum CHW coil selection ΔT .	6/25/2016	6/29/2016	6/27/2016	6/26/2016
bk	6.5.3.4	Specifies control of fans in fan powered parallel VAV boxes.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
bl	6.5.1.2.1	Clarifies that water economizers may use dry coolers.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bn	6.3.2, 6.5.3.6	Sets maximum outdoor air ventilation design requirements or heat recovery.	8/24/2016	9/6/2016	9/26/2016	9/28/2016
bo	5.5.4.4.1; Table 5.5.4.4.1	Modifies the exceptions related to the SHGC credit for shading by permanent projections.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
bp	Table G3.1.2.8	Modifies Appendix G economizer high-limit shutoff.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bq	G3.1.2.5, G3.1.3.14	Sets baseline control requirements for Systems 6 and 8 (FPTU) in Appendix G.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
br	6.4.3.4.2, 6.5.3.4, 6.5.5.2.1, 6.5.6.1, C3.5.8, G3.1.2.11; Tables 6.4.3.4.3, 6.5.1.1, 6.5.1.2, 6.5.1.1.3, 6.5.1.2.1, 6.5.6.1.1, 6.5.6.1.2, 6.6.1, 6.8.2.1, 6.8.2.2, G3.1.1.3, G3.1.1.7, G3.4.1	Adds requirements for new Climate Zone 0.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bs		Water-cooled VRF efficiencies.	8/24/2016	8/29/2016	9/26/2016	8/30/2016

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Addendum	Sections	Description of Changes ^a	ASHRAE Standard Committee Approval	ASHRAE BOD/ Tech Council Approval	IES BOD Approval	ANSI Approval
bt	Table 8.4.4	Updates transformer efficiency requirements.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bv	G3.1.4.4, G3.1.4.9	ECB hydronic reset exceptions for purchased heating and cooling.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bw	G3.1.6	Appendix G lighting controls modeling rules.	6/25/2016	6/29/2016	6/27/2016	6/26/2016
bx	G3.1.2.9.1	Appendix G design airflow rate modeling rules.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
by		Requires insulation of the first 8 ft of branch piping from recirculating SWH systems.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
bz		CRAC unit efficiencies.	8/24/2016	9/6/2016	9/26/2016	9/28/2016
ca		Reduces the threshold for variable-flow heat rejection device fans from 7.5 to 5 hp. Eliminates the exception for Climate Zones 1 and 2.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
cb		Modifies ductwork insulation requirements.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
cc	3.2	Adds definition for sidelight affective aperture.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
cd		Establishes a product class and efficiency requirements for DX-DOAS.	8/24/2016	9/6/2016	9/26/2016	10/7/2016
ce		Raises minimum threshold for energy recovery.	1/23/2016	1/27/2016	12/31/2015	2/24/2016
cf		Requires replacement HVACR equipment to meet most Section 6 requirements.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
cg	9.4.2	Exterior lighting requirements made more stringent.	6/25/2016	6/29/2016	6/27/2016	6/26/2016
ch		Reduces LPD allowances.	8/24/2016	9/6/2016	9/26/2016	9/28/2016
ci		Fenestration orientation.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
cj	G3.1.1.2	Appendix G, Table G3.1.1.2, System 11 footnote.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
ck	G3.1.4.11; Table G3.1.4.11	Appendix G heat rejection leaving water temperature control modeling requirements.	1/23/2016	1/27/2016	12/31/2015	1/28/2016
cl	Appendix H; Tables 6.8.1.1, G.8.1.2, 6.8.1.5, 7.8	Moves water heating efficiency requirements to informative Appendix H.	6/25/2016	6/29/2016	6/27/2016	6/26/2016
cm	Table A9.4.3.1	Clarifies and simplifies the default U-factors within Appendix A for wood panels and wood subfloors, corrects the dimensional lumber sizes in the tables, and reorganizes the material list by putting similar materials together.	8/24/2016	8/29/2016	9/26/2016	8/30/2016

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cn	Table 4.2.1.1	Adds Climate Zone 0 in Table 4.2.1.1 for compliance with Appendix G.	6/25/2016	6/29/2016/	6/27/2016	6/30/2016
co	12	Normative reference updates.	6/25/2016	6/29/2016/	6/27/2016	6/30/2016
cp	A3.2, A9.2, A9.4.5; Table A3.2.3	Provides a U-factor calculation procedure for metal building wall assemblies with filled cavity insulation systems and to add U-factor values to Table A3.2.3, calculated using this procedure. Does not change the criteria of the standard.	6/25/2016	6/29/2016/	6/27/2016	6/30/2016
cq		Bases variable-speed thresholds for heat rejection fans on motor power, including service factor.	6/25/2016	6/29/2016/	6/27/2016	6/30/2016
ct	3.2, 6.5.1, 6.5.4.5.1, 11.5.2; Tables 6.5.1.2.1, 6.5.1.3	Changes “water economizer” to “fluid economizer” to account for refrigerant-based economizers.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
cv		Updates motor efficiencies.	6/25/2016	6/29/2016/	6/27/2016	6/30/2016
cy		Adds definition for indoor pool dehumidifier and moisture removal efficiency (MRE). Adds new table with efficiency requirements and rating conditions.	8/24/2016	9/6/2016	9/26/2016	10/7/2016
da	4.2, Table G3.1.2	Establishes modeling rules for existing buildings in Appendix G.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
db	3.2, 6.5.3.1.2, 11.5.2 G1.1, G1.3, G2.5, G3.1.2.4, G3.1.2.3, G3.1.2.6; Table 11.5.1.6, Table G.3.1	Building official definition and other language clarifications.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dc	Table G3.1.4	Updates reference to Standard 55 in Appendix G.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dd	6.5.4.2, Table 6.5.4.2	Reduces the threshold for variable-flow pumping requirements for chilled-water pumps and add requirement for heating water pumps.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
de	10.4.3.4	Requires specification of ISO use category and energy efficiency class for elevators.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
dg	5.4.3.2	Establishes leakage requirements for glazed power-operated sliding and folding doors. Provides default U-factors for unlabeled metal coiling and other metal nonswinging doors.	6/25/2016	6/29/2016	6/27/2016	6/30/2016

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dh	9.6.2	Clarifies that display lighting adder cannot be taken if display lighting exception is taken.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
di	Table G3.1; G3.9	Adds new table for motor efficiency for Appendix G baseline.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dk	Table 6.8.1-7	Increases the minimum efficiency for axial-fan closed-circuit cooling towers.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dl	6.4.1.2.1; Table 6.8.1.3	Changes rating conditions for centrifugal chillers at nonstandard conditions using K_{adj} formula.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
dm	6.5.4.2	Clarifies which hydronic heating and cooling pumps need variable-flow controls.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
do	9.4.1	Adds efficacy requirements for lighting installed in dwelling units.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
dp	9.4.1.1	Adds exception to restriction on automatic energizing of lighting for open office spaces.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dq	9.6.2	Reduces retail display lighting adder.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dr	3.2, 9.6.2	Reduces decorative lighting adder.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
ds	9.4.1.1	Specifies daylighting controls adjustment location.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dt	3.2, 9.1.2, 9.4.1.1, 9.5.1, 9.6.1, 9.6.4, C3.5.7; Tables 9.4.2.2, 9.5.1, 9.6.1, 11.5.1,	Modifies the definition of lighting power density (LPD) and clarifies language related to LPD.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
dv	11.4.1.4, C3.1.4	Updates the reference to Standard 140.	6/25/2016	6/29/2016	6/27/2016	6/30/2016
dw	Appendix F; Tables G3.1, G3.9, G3.9.2, G3.9.3	Establishes baseline elevator efficiency requirements for Appendix G.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
dz	A.3.2.1, A9.2, A9.4.5	Clarifies metal building wall insulation descriptions.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ea	3.2, 5, 6, 9, 11; Appendix A	Clarifies the definition and application of wall and exterior wall in various locations in the standard.	8/24/2016	8/29/2016	9/26/2016	8/30/2016

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eb	3.2,; Appendices C and G	Clarifies the definition and application of wall and exterior wall in Appendices C and G.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ec	Table 4.2.1.1	Corrects an error in Table 4.2.1.1.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ed	G3.1.3.18	Adds three baseline system types to the rules governing dehumidification in Appendix G.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ef	Tables G3.1, G3.1.1.2	In Appendix G, clarifies that one baseline SWH system is modeled per building area type, adds two new building area types to SWH type table, and changes the SWH fuel source for two building area types.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
eg	G3.1.2.6.1	Removes a caveat in Appendix G that air-side economizers can be modeled if the simulation software does not model waterside economizers.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ej	3.2, 3.3, 6.4.5, 9.1.2, 9.1.3, 9.1.4	Adds a definition for “driver” as it relates to LED fixtures and makes several changes to ensure lighting requirements apply to LED fixtures.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
ek	Tables G3.1, G3.10.1, G3.10.2	Sets baseline efficiency requirements for refrigeration system modeling in Appendix G.	8/24/2016	8/29/2016	9/26/2016	8/30/2016
el	6.3.2, 6.4.3, 6.4.3.12	Adds fault detection requirements for DX equipment with economizers.	8/24/2016	8/29/2016	9/26/2016	8/30/2016

a. *These descriptions may not be complete and are provided for information only.

NOTE

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