

SUBCHAPTER 9

LOW-RISE RESIDENTIAL BUILDINGS—ADDITIONS AND ALTERATIONS TO EXISTING LOW-RISE RESIDENTIAL BUILDINGS

SECTION 150.2 ENERGY EFFICIENCY STANDARDS FOR ADDITIONS AND ALTERATIONS

TO EXISTING LOW-RISE RESIDENTIAL BUILDINGS

(a) **Additions.** Additions to existing low-rise residential buildings shall meet the requirements of Sections 110.0 through 110.9, Sections 150.0(a) through (q), and either Section 150.2(a)1 or 2.

Exception 1 to Section 150.2(a): Additions 1,000 square feet or less are exempt from the ASHRAE Standard 62.2 Section 4 requirements to provide whole-building ventilation airflow as referenced by Section 150.0(o); however, all other applicable requirements of ASHRAE Standard 62.2 as referenced by Section 150.0(o) shall be met by the addition.

Exception 2 to Section 150.2(a): Additions of 300 square feet or less are exempt from the roofing requirements of Section 150.1(c)11.

Exception 3 to Section 150.2(a): Existing inaccessible piping shall not require insulation as defined under Section 150.0(j)2A iii.

Exception 4 to Section 150.2(a): Space-conditioning system. When heating or cooling will be extended to an addition from the existing system(s), the existing heating and cooling equipment need not comply with Part 6. The heating system capacity must be adequate to meet the minimum requirements of CBC Section 1204.1.

Exception 5 to Section 150.2(a): Space-conditioning system ducts. When ducts are extended from an existing duct system to serve the addition, the existing duct system and the extended ducts shall meet the applicable requirements specified in Section 150.2(b)1D.

Exception 6 to Section 150.2(a): Additions 1,000 square feet or less are exempt from the ventilation cooling requirements of Section 150.1(c)12.

Note: For alterations that change the occupancy classification of the building, the requirements specified in Section 150.2(b) apply to the occupancy after the alterations.

1. **Prescriptive approach.** Additions to existing buildings shall meet the following additional requirements:

A. Additions that are greater than 700 square feet shall meet the prescriptive requirements of Section 150.1(c), except:

- i. Extensions of existing wood-framed walls may retain the dimensions of the existing walls and shall install cavity insulation of R-15 in a 2x4 framing and R-19 in a 2 × 6 framing.
- ii. The maximum allowed fenestration area shall be the greater of 175 square feet or 20 percent of the addition floor area, and the maximum allowed west-fac-

ing fenestration area shall be the greater of 70 square feet or the requirements of Section 150.1(c).

B. Additions that are 700 square feet or less shall meet all the requirements of Section 150.1(c), except:

- i. Roof and ceiling insulation shall meet the requirement of Section 150.0; and
- ii. Extensions of existing wood-framed walls may retain the dimensions of the existing walls and shall install cavity insulation of R-15 in a 2 × 4 framing and R-19 in a 2 × 6 framing; and
- iii. In Climate Zones 2, 4 and 7–16; the maximum allowed west-facing fenestration area shall not be greater than 60 square feet; and shall also comply with either a or b below:

a. For additions that are 700 square feet or less but greater than 400 square feet, the maximum allowed fenestration area limit is the greater of 120 square feet or 25 percent of the conditioned floor area of the addition; or

b. For additions that are 400 square feet or less, the maximum allowed fenestration area is the greater of 75 square feet or 30 percent of the conditioned floor area of the addition.

C. Additions larger than 1,000 square feet shall meet the ASHRAE Standard 62.2 Section 4 requirement to provide whole-building ventilation airflow. The whole-building ventilation airflow rate shall be based on the conditioned floor area of the entire dwelling unit comprised of the existing dwelling conditioned floor area plus the addition conditioned floor area.

D. **Water heater.** When a second water heater is installed as part of the addition, one of the following types of water heaters shall be installed and assumed to comply:

- i. A natural gas or propane water-heating system that meets the requirements of Section 150.1(c)8; or
- ii. If no natural gas is connected to the building, an electric water heater that has an energy factor equal to or greater than required under the appliance efficiency regulations. For recirculation distribution systems, only demand recirculation systems with manual control pumps as specified in the Reference Appendix Section RA4.4 shall be used; or
- iii. A water-heating system determined by the executive director to use no more energy than the one specified in Item 1 above; or if no natural gas is connected to the building, a water-heating system determined by the executive director to use no

more energy than the one specified in Item 2 above; or.

- iv. Using the existing building plus addition compliance or addition alone compliance as defined in Section 150.2(a)2 demonstrate that the proposed water heating system uses no more energy than the system defined in Item 1 above regardless of the type or number of water heaters installed.

2. **Performance approach.** Performance calculations shall meet the requirements of Section 150.1(a) through (c), pursuant to the applicable requirements in Items A, B and C below.

- A. For additions alone. The addition complies if the addition alone meets the energy budgets as specified in Section 150.1(b).
- B. Existing plus alteration plus addition. The standard design for existing plus alteration plus addition energy use is the combination of the existing building's unaltered components to remain; existing building altered components that are the more efficient, in TDV energy, of either the existing conditions or the requirements of Section 150.2(b)2; plus the proposed addition's energy use meeting the requirements of Section 150.2(a)1. The proposed design energy use is the combination of the existing building's unaltered components to remain and the altered components' energy features, plus the proposed energy features of the addition.

Exception to Section 150.2(a)2B: Existing structures with a minimum R-11 insulation in framed walls showing compliance with Section 150.2(a)2 are exempt from showing compliance with Section 150.0(c).

C. Additions larger than 1,000 square feet shall meet the ASHRAE Standard 62.2 Section 4 requirement to provide whole-building ventilation airflow. The whole-building ventilation airflow rate shall be based on the conditioned floor area of the entire dwelling unit comprised of the existing dwelling conditioned floor area plus the addition conditioned floor area.

(b) **Alterations.** Alterations to existing low-rise residential buildings or alterations in conjunction with a change in building occupancy to a low-rise residential occupancy shall meet either Item 1 or 2 below.

1. **Prescriptive approach.** The altered component and any newly installed equipment serving the alteration shall meet the applicable requirements of Sections 110.0 through 110.9 and all applicable requirements of Section 150.0(a) through (m), Section 150.0(o) through (q); and

A. **Fenestration.** Alterations that add vertical fenestration and skylight area shall meet the total fenestration area and west facing fenestration area, *U*-factor,

and solar heat gain coefficient requirements of Section 150.1(c) and Table 150.1-A.

Exception 1 to Section 150.2(b)1A: Alterations that add fenestration area of up to 75 square feet shall not be required to meet the total fenestration area and west-facing fenestration area requirements of Section 150.1(c)3B and C.

Exception 2 to Section 150.2(b)1A: Alterations that add up to 16 square feet of new skylight area with a maximum *U*-factor of 0.55 and a maximum SHGC of 0.30 area shall not be required to meet the total fenestration area and west-facing fenestration area requirements of Sections 150.1(c)3B and C.

B. **Replacement fenestration.** Replacement of fenestration, where existing fenestration area in an existing wall or roof is replaced with a new manufactured fenestration product and up to the total fenestration area removed in the existing wall or roof, the replaced fenestration shall meet the *U*-factor and solar heat gain coefficient requirements of Sections 150.1(c)3A and 150.1(c)4.

Exception 1 to Section 150.2(b)1B: Replacement of vertical fenestration no greater than 75 square feet with a *U*-factor no greater than 0.40 in Climate Zones 1–16, and a SHGC value no greater than 0.35 in Climate Zones 2, 4 and 6–16.

Exception 2 to Section 150.2(b)1B: Replaced skylights must meet a *U*-factor no greater than 0.55, and a SHGC value no greater than 0.30.

Note: Glass replaced in an existing sash and frame or replacement of sashes in an existing frame are considered repairs.

C. **Entirely new or complete replacement space-conditioning systems** installed as part of an alteration, shall include all the system heating or cooling equipment, including but not limited to condensing unit and cooling or heating coil for split systems; or complete replacement of a package unit; plus entirely new or replacement duct system (Section 150.2(b)1Diiia); plus a new or replacement air handler.

Entirely new or complete replacement space-conditioning systems shall:

- i. Meet the requirements of Sections 150.0(h), 150.0(i), 150.0(j)2, 150.0(j)3, 150.0(m)1 through 150.0(m)13, 150.1(c)6, 150.1(c)7, 150.1(c)10 and Table 150.2-A; and
- ii. Be limited to natural gas, liquefied petroleum gas or the existing fuel type unless it can be demonstrated that the TDV energy use of the new system is more efficient than the existing system.

D. **Altered duct systems—duct sealing.** In all climate zones when more than 40 feet of new or replacement space-conditioning system ducts are installed, the

ducts shall comply with the applicable requirements of Subsections i and ii below:

- i. New ducts located in unconditioned space shall meet the applicable requirements of Sections 150.0(m)1 through 150.0(m)11, and the duct insulation requirements of Table 150.2-A, and

**TABLE 150.2-A
DUCT INSULATION R-VALUE**

Climate Zone	1 through 10, 12 & 13	11, 14 through 16
Duct R-Value	R-6	R-8

- ii. The altered duct system, regardless of location, shall be sealed as confirmed through field verification and diagnostic testing in accordance with all applicable procedures for duct sealing of altered existing duct systems as specified in the Reference Residential Appendix Section RA3.1, utilizing the leakage compliance criteria specified in Reference Residential Appendix Table RA3.1-2, and conforming to either Subsection a or b below:

- a. **Entirely new or complete replacement duct system.** If the new ducts form an entirely new or replacement duct system directly connected to the air handler, the measured duct leakage shall be equal to or less than 5 percent of the system air handler airflow as confirmed by field verification and diagnostic testing utilizing the procedures in Reference Residential Appendix Section RA3.1.4.3.1.

Entirely new or complete replacement duct systems installed as part of an alteration shall be constructed of at least 75 percent new duct material, and up to 25 percent may consist of reused parts from the dwelling unit’s existing duct system, including but not limited to, registers, grilles, boots, air handler, coil, plenums, duct material, if the reused parts are accessible and can be sealed to prevent leakage.

Entirely new or complete replacement duct systems shall also conform to the requirements of Sections 150(m)12 and 150(m)13.

- b. **Extension of an existing duct system.** If the new ducts are an extension of an existing duct system, the combined new and existing duct system shall meet one of the following requirements:
 - 1. The measured duct leakage shall be equal to or less than 15 percent of nominal system air handler airflow as confirmed by field verification and diagnostic testing utilizing the procedures in Reference Residential Appendix Section RA3.1.4.3.1; or
 - 2. The measured duct leakage to outside shall be equal to or less than 10 percent of nominal system air handler airflow as confirmed by field verification and diagnostic testing

utilizing the procedures in Reference Residential Appendix Section RA3.1.4.3.4; or

- 3. If it is not possible to meet the duct sealing requirements of either Section 150.2(b)1Diib1 or 150.2(b)1Diib2, then all accessible leaks shall be sealed and verified through a visual inspection and a smoke test by a certified HERS Rater utilizing the methods specified in Reference Residential Appendix Section RA3.1.4.3.5.

Exception to Section 150.2(b)1Diib: Duct sealing. Existing duct systems that are extended, which are constructed, insulated or sealed with asbestos.

E. Altered space-conditioning system—duct sealing.

In all climate zones, when a space-conditioning system is altered by the installation or replacement of space-conditioning system equipment, including replacement of the air handler, outdoor condensing unit of a split system air conditioner or heat pump, or cooling or heating coil, the duct system that is connected to the altered space-conditioning system equipment shall be sealed, as confirmed through field verification and diagnostic testing in accordance with the applicable procedures for duct sealing of altered existing duct systems as specified in Reference Residential Appendix Section RA3.1, and the leakage compliance criteria specified in Reference Residential Appendix Table RA3.1-2, conforming to one of the following requirements:

- i. The measured duct leakage shall be equal to or less than 15 percent of system air handler airflow as determined utilizing the procedures in Reference Residential Appendix Section RA3.1.4.3.1; or
- ii. The measured duct leakage to outside shall be equal to or less than 10 percent of system air handler airflow as determined utilizing the procedures in Reference Residential Appendix Section RA3.1.4.3.4; or
- iii. If it is not possible to meet the duct sealing requirements of either Section 150.2(b)1Ei or 150.2(b)1Eii, then all accessible leaks shall be sealed and verified through a visual inspection and a smoke test by a certified HERS Rater utilizing the methods specified in Reference Residential Appendix Section RA3.1.4.3.5.

Exception 1 to Section 150.2(b)1E: Duct sealing. Duct systems that are documented to have been previously sealed as confirmed through field verification and diagnostic testing in accordance with procedures in the Reference Residential Appendix Section RA3.1.

Exception 2 to Section 150.2(b)1E: Duct sealing. Duct systems with less than 40 linear feet as determined by visual inspection.

Exception 3 to Section 150.2(b)1E: Duct sealing. Existing duct systems constructed, insulated or sealed with asbestos.

F. Altered space-conditioning system—mechanical cooling. When a space-conditioning system is an air conditioner or heat pump that is altered by the installation or replacement of refrigerant-containing system components such as the compressor, condensing coil, evaporator coil, refrigerant metering device or refrigerant piping, the altered system shall comply with the following requirements:

- i. All thermostats associated with the system shall be replaced with setback thermostats meeting the requirements of Section 110.2(c).
- ii. In Climate Zones 2, 8, 9, 10, 11, 12, 13, 14 and 15, air-cooled air conditioners and air-source heat pumps, including but not limited to ducted split systems, ducted package systems and minisplit systems shall comply with Subsections a and b, unless the system is of a type that cannot be verified using the specified procedures. Systems that cannot comply with the requirements of Section 150.2(b)1Fii shall comply with Section 150.2(b)1Fiii.

Exception to Section 150.2(b)1Fii: Entirely new or complete replacement packaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiia, provided that the system is of a type that can be verified using the procedure specified in Section RA3.3 or an approved alternative in Section RA1.

- a. Minimum system airflow rate greater than or equal to 300 cfm per ton shall be demonstrated by the installer and be verified by the HERS Rater according to the procedures specified in Reference Residential Appendix Section RA3.3 or an approved alternative procedure as specified in Section RA1; and

Exception 1 to Section 150.2(b)1Fiia: Systems unable to comply with the minimum 300 cfm per ton airflow rate requirement shall demonstrate compliance using the procedures in Section RA3.3.3.1.5; and the system's thermostat shall conform to the specifications in Reference Joint Appendix JA5.

Exception 2 to Section 150.2(b)1Fiia: The Executive Director may approve alternate airflow and fan efficacy requirements for small duct high velocity systems.

Exception 3 to Section 150.2(b)Fiia: Entirely new or complete replacement space conditioning systems, as specified by Section 150.2(b)1C, without zoning dampers may comply with the minimum airflow rate by meeting the applicable requirements in Table 150.0-B or 150.0-C as confirmed by field verification and diagnostic testing in accordance with the procedures in Reference Residential Appendix Sections RA3.1.4.4 and RA3.1.4.5. The design clean-filter pressure drop requirements of Section 150.0(m)12C for the system air filter device(s) shall conform to the requirements given in Tables 150.0-B and 150.0-C.

- b. The installer shall charge the system according to manufacturer's specifications. Refrigerant charge shall be verified according to one of the following options, as applicable.
 - 1. The installer and rater shall perform the standard charge verification procedure as specified in Reference Residential Appendix Section RA3.2.2, or an approved alternative procedure as specified in Section RA1; or
 - 2. The system shall be equipped with a fault indicator display (FID) device that meets the specifications of Reference Joint Appendix JA6. The installer shall verify the refrigerant charge and FID device in accordance with the procedures in Reference Residential Appendix Section RA3.4.2. The HERS Rater shall verify FID device in accordance with the procedures in Section RA3.4.2; or
 - 3. The installer shall perform the weigh-in charging procedure as specified by Reference Residential Appendix Section RA3.2.3.1, provided the system is of a type that can be verified using the Section RA3.2.2 standard charge verification procedure and Section RA3.3 airflow rate verification procedure or approved alternatives in Section RA1. The HERS Rater shall verify the charge using Sections RA3.2.2 and RA3.3 or approved alternatives in Section RA1.

Exception 1 to Section 150.2(b)1Fiib: When the outdoor temperature is less than 55°F and the installer utilizes the weigh-in charging procedure in Reference Residential Appendix Section RA3.2.3.1 to demonstrate compliance, the installer may elect to utilize the HERS Rater verification procedure in Reference Residential Appendix Section RA3.2.3.2. If the HERS Rater verification procedure in Section RA3.2.3.2 is used for compliance, the system's thermostat shall conform to the specifications in Reference Joint Appendix JA5. Ducted systems shall comply with the minimum system airflow rate requirements in Section 150.2(b)1Fiia.

iii. In Climate Zones 2, 8, 9, 10, 11, 12, 13, 14 and 15, air-cooled air conditioners or air-source heat pumps, including but not limited to ducted split systems, ducted package systems, and minisplit systems, which are of a type that cannot comply with the requirements of 150.2(b)1Fiib shall comply with subsections a and b, as applicable.

a. The installer shall confirm the refrigerant charge using the weigh-in charging procedure specified in Reference Residential Appendix Section RA3.2.3.1, as verified by a HERS Rater according to the procedures specified in Reference Residential Appendix Section RA3.2.3.2; and

b. Systems that utilize forced air ducts shall comply with the minimum system airflow rate requirement in Section 150.2(b)1Fiia provided the system is of a type that can be verified using the procedures in Section RA3.3 or an approved alternative procedure in Section RA1.

Exception to Section 150.2(b)1Fiii: Entirely new or complete replacement packaged systems for which the manufacturer has verified correct system refrigerant charge prior to shipment from the factory are not required to have refrigerant charge confirmed through field verification and diagnostic testing. The installer of these packaged systems shall certify on the Certificate of Installation that the packaged system was pre-charged at the factory and has not been altered in a way that would affect the charge. Ducted systems shall comply with minimum system airflow rate requirement in Section 150.2(b)1Fiiib, provided that the system is of a type that can be verified using the procedure specified in Section RA3.3 or an approved alternative in Section RA1.

G. Water-heating system. Replacement service water-heating systems or components shall:

i. **Pipe insulation.** For newly installed piping, the insulation requirements of Section 150.0(j)2 shall be met. For existing accessible piping the applicable requirements of Section 150.0(j)2Ai, iii, and iv shall be met.

ii. **Water heating system.** The replacement water heating system shall meet one of the following requirements:

a. A natural gas or propane water-heating system that meets the requirements of Section 110.1 and 110.3. For recirculation distribution systems, only demand recirculation systems with manual control pumps as specified in the Reference Appendix Section RA4.4 shall be used; or

b. If no natural gas is connected to the building, an electric water heater that meets the requirements of Section 110.1 and 110.3. For electric resistance storage type water heaters, the capacity shall not exceed 60 gallons. For cir-

ulation distribution systems, only demand recirculation systems with manual control pumps as specified in the Reference Appendix Section RA4.4 shall be used; or

c. A water-heating system determined by the executive director to use no more energy than the one specified in Item 1 above; or if no natural gas is connected to the building, a water-heating system determined by the executive director to use no more energy than the one specified in Item 2 above; or

d. Using the existing building plus addition compliance approach as defined in Section 150.2(b)2 demonstrate that the proposed water heating system uses no more energy than the system defined in Item 1 above regardless of the type or number of water heaters installed.

H. Roofs. Replacements of the exterior surface of existing roofs shall meet the requirements of Section 110.8 and the applicable requirements of Subsections i and ii where more than 50 percent of the roof is being replaced:

i. Low-rise residential buildings with steep-sloped roofs. Climate zones 10 through 15 shall have a minimum aged solar reflectance of 0.20 and a minimum thermal emittance of 0.75, or a minimum SRI of 16.

Exception to Section 150.2(b)1Hi: The following shall be considered equivalent to Subsection i:

a. Air-space of 1.0 inch (25 mm) is provided between the top of the roof deck to the bottom of the roofing product; or

b. The installed roofing product has a profile ratio of rise to width of 1 to 5 for 50 percent or greater of the width of the roofing product; or

c. Existing ducts in the attic are insulated and sealed according to Section 150.1(c)9; or

d. Buildings with at least R-38 ceiling insulation; or

e. Buildings with a radiant barrier in the attic meeting the requirements of Section 150.1(c)2; or

f. Buildings that have no ducts in the attic; or

g. In Climate Zones 10–15 and 14, R-2 or greater insulation above the roof deck.

ii. Low-sloped roofs in Climate Zones 13 and 15 shall have a 3-year aged solar reflectance equal or greater than 0.63 and a thermal emittance equal or greater than 0.75, or a minimum SRI of 75.

Exception to Section 150.2(b)1Hii: Buildings with no ducts in the attic.

Exception 2 to Section 150.2(b)1Hii: The aged solar reflectance can be met by using insulation at the roof deck specified in Table 150.2-B.

I. **Lighting.** The altered lighting system shall meet the lighting requirements of Section 150.0(k). The altered luminaires shall meet the luminaire efficacy requirements of Section 150.0(k) and Table 150.0-A.

2. **Performance approach.** This performance approach shall only be used for projects that include tradeoffs between two or more altered components that are listed in Table 150.2-C.

Note: The altered components may be components of the same type, such as a tradeoff between two windows, or components of differing types, such as a tradeoff between a window and an amount of attic insulation.

A. The altered components shall meet the applicable requirements of Sections 110.0 through 110.9, and Sections 150.0(a) through (q); and

B. The standard design for an altered component shall be the higher efficiency of existing conditions or the requirements stated in Table 150.2-C. For components not being altered, the standard design shall be based on the existing conditions. When the third party verification option is specified as a requirement, all components proposed for alteration for which the additional credit is taken, must be verified.

**TABLE 150.2-B
AGED SOLAR REFLECTANCE INSULATION TRADE OFF TABLE**

AGED SOLAR REFLECTANCE	ROOF DECK INSULATION R-VALUE	AGED SOLAR REFLECTANCE	ROOF DECK INSULATION R-VALUE
0.62-0.60	2	0.44-0.40	12
0.59-0.55	4	0.39-0.35	16
0.54-0.50	6	0.34-0.30	20
0.49-0.45	8	0.29-0.25	24

**TABLE 150.2-C
STANDARD DESIGN FOR AN ALTERED COMPONENT**

ALTERED COMPONENT	STANDARD DESIGN WITHOUT THIRD PARTY VERIFICATION OF EXISTING CONDITIONS SHALL BE BASED ON	STANDARD DESIGN WITH THIRD-PARTY VERIFICATION OF EXISTING CONDITIONS SHALL BE BASED ON
Ceiling insulation, wall insulation, and raised-floor insulation	The requirements of Sections 150.0(a), (c), and (d)	The existing insulation R-value
Fenestration	The U-factor of 0.40 and SHGC value of 0.35. The glass area shall be the glass area of the existing building.	If the proposed U-factor is ≤ 0.40 and SHGC value is ≤ 0.35 , the standard design shall be based on the existing U-factor and SHGC values as verified. Otherwise, the standard design shall be based on the U-factor of 0.40 and SHGC value of 0.35. The glass area shall be the glass area of the existing building.
Window film	The U-factor of 0.40 and SHGC value of 0.35.	The existing fenestration in the alteration shall be based on Tables 110.6-A and 110.6-B.
Space-heating and space-cooling equipment	The requirements of Table 150.1-A.	The existing efficiency levels.
Air distribution system – duct sealing	The requirements of Section 150.2(b)1D.	
Air distribution system – duct insulation	The proposed efficiency levels.	The existing efficiency levels.
Water heating systems	The requirements of Section 150.1(b)1 without the solar water heating requirements.	The existing efficiency energy factor.
Roofing products	The requirements of Section 150.2(b)1H.	
All other measures	The proposed efficiency levels.	The existing efficiency levels.

C. The proposed design shall be based on the actual values of the altered components.

Notes to Section 150.2(b)2:

1. If an existing component must be replaced with a new component, that component is considered an altered component for the purpose of determining the standard design altered component energy budget and must meet the requirements of Section 152(b)2B.
2. The standard design shall assume the same geometry and orientation as the proposed design.
3. The “existing efficiency level” modeling rules, including situations where nameplate data are not available, are described in the Residential ACM Approval Manual.

Exception 1 to Section 150.2(b): Any dual-glazed greenhouse or/garden window installed as part of an alteration complies with the U-factor requirements in Section 150.1(c)3.

Exception 2 to Section 150.2(b): Where the space in the attic or rafter area is not large enough to accommodate the required R-value, the entire space shall be filled with insulation, provided such installation does not violate Section 1203.2 of Title 24, Part 2.

Exception 3 to Section 150.2(b): Space-conditioning system ducts. The requirements of Sections 150.0(m)12, 150.0(m)13, 150.0(m)14 and 150.0(m)15 are not applicable to Section 150.2(b).

(c) **Whole building.** Any addition or alteration may comply with the requirements of Title 24, Part 6 by meeting the requirements for the entire building.

2010 CALIFORNIA MECHANICAL CODE, CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4, CHAPTER 6, DUCT SYSTEMS

TABLE P4-A ADOPTION TABLE

CODE SECTION		CEC (Energy Commission)
Entire CMC as noted in this table ¹		
601.0		X
602.0		X
604.0		X
605.0		X

1. Adopted by reference for Occupancies A, B, E, F, H, M, R and S; see Sections 110.8(d)3, 120.4 and 150.0(m).

