

BUILDING CODES UPDATE – APRIL 2014

New Codes to Adopt

- 2012 *International Mechanical Code* (IMC) including Appendix A
Can be adopted now. IDABO recommends adoption on July 1, 2014.
- 2012 *International Fuel Gas Code* (IFGC) including Appendices A, B, C, and D
Can be adopted now. IDABO recommends adoption on July 1, 2014.
- 2014 *National Electrical Code* (NEC)
For Cities, can be adopted on or after July 1, 2014.
- 2012 *International Residential Code* (IRC) including Appendices A, B, C, and D
Mechanical Parts V & VI and Appendices can be adopted now. IDABO recommends adoption on July 1, 2014.
The remaining code must be adopted by January 1, 2015.
- 2012 *International Energy Conservation Code* (IECC)
Must be adopted by January 1, 2015.

New State Amendments/Administrative Rules (in addition to the existing amendments)

2012 IMC

- Section 504.6.1 Material and size. Add the following exception:

Dryer duct may be constructed of 0.013 (30 gauge) or equivalent if prefabricated 0.016 (28 gauge) ducts and fittings are not available.
- Table 603.4 Duct Construction Minimum Sheet Metal Thickness for Single Dwelling Units.
Add the following exception to the Table:

Round duct, enclosed rectangular ducts and fittings less than fourteen (14) inches may be constructed of 0.013 (30 gauge) or equivalent if prefabricated 0.016 (28 gauge) ducts and fittings are not available.

2014 NEC

- Rule change for certification and approval of electrical products and materials is as follows:

CERTIFICATION AND APPROVAL OF ELECTRICAL PRODUCTS AND MATERIALS.

In the state of Idaho, all materials, devices, fittings, equipment, apparatus, luminaires, and appliances installed or to be used in installations that are supplied with electric energy shall be approved as provided in one (1) of the following methods:

01. Testing Laboratory. Be tested, examined, and certified (Listed) by a Nationally Recognized Testing Laboratory (NRTL).

02. Field Evaluation. Non-listed electrical equipment may be approved for use through a field evaluation process performed in accordance with recognized practices and procedures such as those contained in the 2012 edition of NFPA 791 - Recommended Practice and Procedures for Unlabeled Electrical Equipment Evaluation published by the National Fire Protection Association (NFPA). Such evaluations shall be conducted by:

- a. The authority having jurisdiction (AHJ);
 - b. A field evaluation body (FEB) approved by the authority having jurisdiction. The field evaluation body shall meet minimum recognized standards for competency, such as NFPA 790 - Standard for Competency of Third-Party Field Evaluation Bodies, 2012 edition, published by the National Fire Protection Association (NFPA);
or
 - c. In the case of industrial machinery only, as defined by NFPA 79 - Electrical Standard for Industrial Machinery, 2012 edition, a field evaluation may be performed by a professional engineer currently licensed to practice electrical engineering by the state of Idaho and who is not involved in the design of the equipment being evaluated or the facility in which the equipment is to be installed.
- Article 210.8(A)(7) Sinks. Delete article 210.8(A)(7) and replace with the following:

Sinks - located in areas other than kitchens where receptacles are installed within one and eight tenths (1.8) meters (six (6) feet) of the outside edge of the sink.
 - Article 210.8(A)(10). Delete article 210.8(A)(10).
 - Article 210.8(D). Delete article 210.8(D).

- Article 210.52(E)(3). Delete article 210.52(E)(3) and replace with the following:

Balconies, Decks, and Porches. Balconies, decks, and porches having an overall area of twenty (20) square feet or more that are accessible from inside the dwelling unit shall have at least one (1) receptacle outlet installed within the perimeter of the balcony, deck, or porch. The receptacle shall not be located more than two (2.0) meters (six and one half (6½) feet) above the balcony, deck, or porch surface.

- Where the height of a crawl space does not exceed one and four tenths (1.4) meters or four and one half (4.5) feet it shall be permissible to secure NM cables, that run at angles with joist, to the bottom edge of joist. NM cables that run within two and one tenth (2.1) meters or seven (7) feet of crawl space access shall comply with Article 320.23.
- Article 675.8(B). Compliance with Article 675.8(B) will include the additional requirement that a disconnecting means always be provided at the point of service from the utility no matter where the disconnecting means for the machine is located.

2012 IRC

- Delete exception No. 1 contained under IRC section R101.2 - Scope.
- Delete exception No. 2 contained under IRC section R101.2 - Scope, and replace with the following exception:

Owner-occupied lodging houses with five or fewer guestrooms shall be permitted to be constructed in accordance with the International Residential Code for One- and Two-family Dwellings.

NOTE: The amendment language posted online for this section is an error. The Division of Building Safety and State Building Code Board are working on a correction to this amendment that will reflect the language noted directly above.

- Add the following item No. 11 at the end of the “Building” subsection of IRC section R105.2 - Work exempt from permit:

Flag poles.

- Delete IRC section R303.4.
- Delete IRC section R501.3 and its exceptions.

- Delete IRC section R602.10 and replace with the following:

Wall bracing. Buildings shall be braced in accordance with this section or, when applicable section R602.12, or the most current edition of APA System Report SR-102 as an alternate method. Where a building, or portion thereof, does not comply with one (1) or more of the bracing requirements in this section, those portions shall be designated and constructed in accordance with section R301.1.

- Chapter 11 [RE] Energy Efficiency - The following sections and tables of chapter 11 shall be amended in accordance with the requirements contained below in Subsection 004.04 of these rules (see IECC amendments for actual amended language) which correspond to the appropriate section:

- Table N1102.1.1 (Table R402.1.1) - Insulation and Fenestration Requirements by Component;
- Table N1102.1.3 (Table R402.1.3 - Equivalent U-Factors;
- Table N1102.2.6 (Table R402.2.6) - Steel-Frame Ceiling, Wall and Floor Insulation (R-Value);
- Section N1102.4.1 (R402.4.1) Building Thermal Envelope;
- Section N1102.4.1.1 (R402.4.1.1) - Insulation;
- Table N1102.4.1.1 (Table R402.4.1.1) - Air Barrier and Insulation Installation;
- Section N1102.4.1.2 (R402.4.1.2) Testing Option;
- Add Section N1102.4.1.3 (R402.4.1.3) - Visual Inspection Option;
- Add Section N1102.6 (R402.6) - Residential Log Home Thermal Envelope;
- Add Table N1102.6 (Table R402.6) - Log Home Prescriptive Thermal Envelope Requirements by Component; and
- Section N1104.1 (R404.1) - Lighting Equipment.

- Section M1502.4.1 Material and size. Add the following exception:

Dryer duct may be constructed of 0.013 (30 gauge) or equivalent if prefabricated 0.016 (28 gauge) ducts and fittings are not available.

- Delete Section M1502.4.2 Duct Installation and replace with the following:

Exhaust ducts shall be supported at four (4) foot (1,219 mm) intervals and secured in place. The insert end of the duct shall extend into the adjoining duct or fitting in the direction of airflow. Ducts shall not be joined with screws or similar fasteners that protrude into the inside of the duct.

- Section M1507.3.1 System Design. Add the following to the end of the section:

Outdoor air shall be ducted predominantly horizontal to avoid chimney effect. Outdoor air ducts will contain an accessible back draft damper and be designed to have an open cross section of twenty (20) square inches per one thousand (1,000) square feet of conditioned space.

- Table M1601.1.1 (2) Gauges of Metal Ducts and Plenums Used for Heating or Cooling. Add the following exception:

Round duct, enclosed rectangular ducts and fittings less than fourteen (14) inches may be constructed of 0.013 (30 gauge) or equivalent if prefabricated 0.016 (28 gauge) ducts and fittings are not available.

2012 IECC

- Delete the values contained in Table R402.1.1 (Table N1102.1.1) for climate zone “5 and Marine 4” and climate zone “6” and replace with the following:

**Table R402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT**

Climate Zone	Fenestration U- Factor	Skylight U-factor	Glazed Fenestration SHGC	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Slab R-Value	Crawlspace Wall R-Value
5 and Marine 4	0.35	0.60	NR	38	20 or 13+5 ^h	13/17	30 ^g	10/13	10, 2 ft	10/13
6	0.35	0.60	NR	49	20 or 13+5 ^h	15/19	30 ^g	15/19	10, 4 ft	10/13

- Delete the values contained in Table R402.1.3 (Table N1102.1.3) for climate zone “5 and Marine 4” and climate zone “6” and replace with the following:

**Table R402.1.3
EQUIVALENT U-FACTORS**

Climate Zone	Fenestration U-factor	Skylight U-factor	Ceiling R-Value	Wood Frame Wall R-Value	Mass Wall R-Value	Floor R-Value	Basement Wall R-Value	Crawlspace Wall R-Value
5 and Marine 4	0.35	0.60	0.030	0.057	0.082	0.033	0.059	0.065
6	0.35	0.60	0.026	0.057	0.060	0.033	0.050	0.065

- Delete Table R402.2.6 (Table N1102.2.6) and replace with the following:

**TABLE R402.2.6
STEEL-FRAME CEILING, WALL AND FLOOR INSULATION
(R-VALUE)**

WOOD FRAME R-VALUE REQUIREMENT	COLD-FORMED STEEL EQUIVALENT R-VALUE ^a
Steel Truss Ceilings	
R-30	R-38 or R-30 + 3 or R-26 + 5
R-38	R-49 or R-38 +3
R-49	R-38 + 5
Steel Joist Ceilings	
R-30	R-38 in 2 x 4 or 2 x 6 or 2 x 8 R-49 in any framing
R-38	R-49 in 2 x 4 or 2 x 6 or 2 x 8 or 2 x 10
Steel-Framed Wall	
R-13	R-13 + 5 or R-15 + 4 or R-21 + 3 or R-0 + 10
R-19	R-13 + 9 or R-19 + 8 or R-25 + 7
R-21	R-13 + 10 or R-19 + 9 or R-25 + 8
Steel Joist Floor	
R-13	R-19 in 2 x 6 R-19 + 6 in 2 x 8 or 2 x 10
R-19	R-19 + 6 in 2 x 6 R-19 + 12 in 2 x 8 or 2 x 10
a. Cavity insulation R-value is listed first, followed by continuous insulation R-value. b. Insulation exceeding the height of the framing shall cover the framing.	

- Delete section 402.4.1 (N1102.4.1) and replace with the following:

Building thermal envelope. The building thermal envelope shall comply with sections R402.1.1 and either section R402.4.1.2 or R402.4.1.3. The sealing methods between dissimilar materials shall allow for differential expansion and contraction.

- Delete section 402.4.1.1 (N1102.4.1.1) and replace with the following:

Installation. The components of the building thermal envelope as listed in Table R402.4.1.1 shall be installed in accordance with the manufacturer's instructions and the criteria listed in Table R402.4.1.1, as applicable to the method of construction.

- Delete the criteria requirement for the "Fireplace" component of Table R402.4.1.1 (Table N1102.4.1.1) - Air Barrier and Insulation Installation, and replace with the following:

An air barrier shall be installed on fireplace walls.

- Delete section 402.4.1.2 (N1102.4.1.2) and replace with the following:

Testing option, Building envelope tightness and insulation installation shall be considered acceptable when tested air leakage is less than seven (7) air changes per hour (ACH) when tested with a blower door at a pressure of 33.5 psf (50 Pa). Testing shall occur after rough in and after installation of penetrations of the building envelope, including penetrations for utilities, plumbing, electrical, ventilation and combustion appliances. During testing:

Exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;
Dampers shall be closed, but not sealed, including exhaust, intake, makeup air, backdraft and flue dampers;

Interior doors shall be open;

Exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;

Heating and cooling system(s) shall be turned off;

HVAC ducts shall not be sealed; and

Supply and return registers shall not be sealed.

- Add the following as section 402.4.1.3 (N1102.4.1.3):

Visual inspection option, Building envelope tightness and insulation installation shall be considered acceptable when the items listed in Table 402.4.1.1, applicable to the method of construction, are field verified. Where required by code official an approved party

independent from the installer of the insulation shall inspect the air barrier and insulation.

➤ Add the following section:

R402.6 (N1102.6) Residential Log Home Thermal Envelope. Residential log home construction shall comply with sections 401 (General), 402.4 (Air Leakage), 402.5 (Maximum Fenestration U-Factor and SHGC), 403.1 (Controls), 403.2.2 (Sealing), 403.2.3 (Building Cavities), sections 403.3 through 403.9 (referred to as the mandatory provisions), Section 404 (Electrical Power and Lighting Systems), and either Subparagraph 004.04.b. i., ii., or iii. as follows:

- i. Sections 402.2 through 402.3, 403.2.1, 404.1 and Table 402.6;
- ii. Section 405 Simulated Performance Alternative (Performance); or
- iii. REScheck (U.S. Department of Energy Building Codes Program).

➤ Add Table R402.6 (Table N1102.6) Log Home Prescriptive Thermal Envelope Requirements By Component to be used only in accordance with Subparagraph 004.04.b.i. above to appear as follows:

**TABLE R402.6
LOG HOME PRESCRIPTIVE THERMAL ENVELOPE REQUIREMENTS BY COMPONENT**

For SI: 1 foot = 304.8 mm.

CLIMATE ZONE	FENESTRATION U-FACTOR ^a	SKYLIGHT U-FACTOR	GLAZED FENESTRATION SHGC	CEILING R-VALUE	Min. Average LOG Size in inches	FLOOR R-VALUE	BASEMENT WALL R-VALUE ^d	SLAB R-VALUE & DEPTH ^b	CRAWL SPACE WALL R-VALUE ^d
5, 6 - High efficiency equipment path ^c	0.32	0.60	NR	49	5	30	15/19	10, 4 ft.	10/13
5	0.32	0.60	NR	49	8	30	10/13	10, 2 ft.	10/13
6	0.30	0.60	NR	49	8	30	15/19	10, 4 ft.	10/13

a. The fenestration U-factor column excludes skylights. The SHGC column applies to all glazed fenestration.

b. R-5 shall be added to the required slab edge R-values for heated slabs.

c. 90% AFUE natural gas or propane, 84% AFUE oil, or 15 SEER heat pump heating equipment (zonal electric resistance heating equipment such as electric base board electric resistance heating equipment as the sole source for heating is considered compliant with the high efficiency equipment path).

d. "15/19" means R-15 continuous insulated sheathing on the interior or exterior of the home or R-19 cavity insulation at the interior of the basement wall. "15/19" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulated sheathing on the interior or exterior of the home. "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home or R-13 cavity insulation at the interior of the basement wall.

- Delete section R404.1 (N1104.1) and replace with the following:

Lighting equipment (Mandatory). A minimum of fifty percent (50%) of the lamps in permanently installed lighting fixtures shall be high-efficacy lamps or a minimum of fifty percent (50%) of the permanently installed lighting fixtures shall contain only high efficacy lamps.

2012 IBC

- Delete section 305.2.3 and replace with the following:

Twelve (12) or fewer children in a dwelling unit. A facility such as the above within a dwelling unit and having twelve (12) or fewer children receiving such day care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code.

- Delete section 308.6.4 and replace with the following:

Persons receiving care in a dwelling unit. A facility such as the above within a dwelling unit and having twelve (12) or fewer children receiving day care or having five (5) or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy or shall comply with the International Residential Code.

- Delete section 310.5 and replace with the following:

Residential Group R-3. Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-4, E or I, including:

Buildings that do not contain more than two (2) dwelling units;
Boarding houses (nontransient) with sixteen (16) or fewer occupants;
Boarding houses (transient) with ten (10) or fewer occupants;
Care facilities that provide accommodations for five (5) or fewer persons receiving care;
Congregate living facilities (nontransient) with sixteen (16) or fewer occupants;
Congregate living facilities (transient) with ten (10) or fewer occupants; or
Dwelling units providing day care for twelve (12) or fewer children.

- Delete section 310.5.1 and replace with the following:

Care facilities within a dwelling. Care facilities for twelve (12) or fewer children receiving day care or for five (5) or fewer persons receiving care that are within a single-family dwelling are permitted to comply with the International Residential Code.

All State Amendments/Administrative Rules

NOTE: All state amendments/administrative rules, including from previous codes that have been carried over to the new codes, can be viewed on the website of the Idaho Office of the Administrative Rules Coordinator at <http://adminrules.idaho.gov/>. Click on “Administrative Code” and then “Current Code”. Look under “Building Safety, Division of”.