24.301.161 INCORPORATION BY REFERENCE OF INTERNATIONAL ENERGY CONSERVATION CODE (1) The Department of Labor and Industry adopts and incorporates by reference the International Code Council's International Energy Conservation Code, ~~2012~~ 2018 Edition, referred to as the International Energy Conservation Code, unless another edition is specifically stated, together with the following Appendix and amendments:

(a) Subsections C103.1 and R103.1, General, are deleted and replaced with the following: "With each application for a building permit, and when required by the building official, plans and specifications shall be submitted. The building official may require plans and specifications be prepared by an engineer or architect licensed to practice by the state, except for owner-occupied, single-family dwelling houses."

(i) Exception:
"The code official is authorized to waive the requirements for construction documents or other supporting data if the code official determines they are not necessary to confirm compliance with this code."

(b) Subsections ~~C104.2~~ C105.2 and ~~R104.2~~ R105.2, Required ~~Approvals~~ Inspections, are deleted in their entirety when the code is used by the Building Codes Bureau of the Department of Labor and Industry. It remains undeleted and available for use for certified local governments using the code.

(c) Sections C202 and R202, General Definitions, the definition for "Air Barrier" is deleted and replaced with a new definition for "Air Barrier" as follows: "Air Barrier: Material(s) assembled and joined together to provide a barrier to air leakage through and into the building envelope. An air barrier may be a single material or a combination of materials."

(d) Table ~~402.1.1~~, R402.1.2, INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT, is amending requirements for climate zone "6" as shown below in the table:

Climate Zone	Fenestration *U*-Factor(b)	Skylight(b) *U*-Factor	Glazed Penetration SHGC(b,d)	Ceiling *R*-Value	Wood Framed Wall *R*-Value
6	~~0.32.~~ 0.30	0.55	NR	49	21 or 13+10(h)

Mass Wall *R*-Value(i)	Floor *R*-Value	Basement(c) Wall *R*-Value	Slab(b) *R*-Value & Depth	Crawl Space Wall(c) *R*-Value
15/20	30(g)	15/19	10, 4 ft	15/19

(e) Table R402.1.~~3~~ 4, EQUIVALENT *U*-FACTORS, is amending requirements as shown below in the table:

Climate Zone	Fenestration *U-Factor*	Skylight *U*-Factor	Ceiling *U*-Factor	Frame Wall *U*-Factor	Mass Wall *U*-Factor	Floor *U*-Factor	Basement Wall *U*-Factor	Crawl Space Wall *U*-Factor
6	0.32	0.55	0.026	0.054	0.060	0.033	0.050	0.055

(f) Subsection R402.2.2, Ceilings Without Attic Spaces, is deleted and replaced with the following: "Where Section ~~402.1.1~~ 402.1.2 would require insulation levels above R-30 and the design of the roof/ceiling assembly does not allow sufficient space for the required insulation, the minimum required insulation for such roof/ceiling assemblies shall be R-30. This reduction of insulation from the requirements of Section ~~402.1.1~~ 402.1.2 , shall be limited to 250 square feet or ten percent of the total insulated ceiling area, whichever is less. This reduction shall not apply to the *U*-factor alternative approach in Section ~~402.1.~~3 402.1.4, and the total UA alternative in Section ~~402.1.4~~ 402.1.5."

(g) Subsection ~~R402.2.9~~ R402.2.11, Crawl Space Walls, is deleted and replaced with the following: "As an alternative to insulating floors over crawl spaces, crawl space walls shall be permitted to be insulated when the crawl space is not vented to the outside. Temporary crawl space vent openings are allowed during construction for crawl spaces that have insulated crawl space walls. These temporary crawl space vent openings shall be closed, sealed, and insulated to the same R-value of the surrounding crawl space wall insulation once construction is complete and prior to the time that the final building inspection would occur. Crawl space wall insulation shall be permanently fastened to the wall and shall extend downward from the floor, the entire height of the crawl space wall. Exposed earth in unvented crawl space foundations shall be covered with a continuous Class I vapor retarder. All joints of the vapor retarder shall overlap six inches and be sealed or taped. The edges of the vapor retarder shall extend at least six inches up the stem wall and shall be attached and sealed to the stem wall."

(h) Subsection R402.4.1.2, Testing, is deleted and replaced with the following: The building or dwelling unit shall be tested and verified as having an air leakage rate of not exceeding four air changes per hour in Climate Zone 6. Testing shall be conducted with a blower door at a pressure of 0.2 inches w.g. (50 Pascals). Where required by the code official, testing shall be conducted by an approved party. A written report of the results of the test shall be signed by the party conducting the test and provided to the code official. Testing shall be performed at any time after creation of all penetrations of the building thermal envelope. The requirements of testing found in subsection R402.4.1.2 will not be mandatory until one year following the final adoption of this rule. Buildings or dwelling units issued a building permit by a code official prior to this testing becoming required shall not be required to perform testing under subsection R402.4.1.2. During testing:

"(i) exterior windows and doors, fireplace and stove doors shall be closed, but not sealed;

"(ii) dampers shall be closed, but not sealed, including exhaust, intake, makeup air, back draft and flue dampers;

"(iii) interior doors shall be open;

"(iv) exterior openings for continuous ventilation systems and heat recovery ventilators shall be closed and sealed;

"(v) heating and cooling system(s) shall be turned off;

"(vi) "B" or "L" vents, combustion air vents, and dryer vents shall be sealed; and

"(vii) HVAC ducts shall not be sealed.

~~(i) Subsection R403.2.2, Sealing (Mandatory). Delete the existing 2. found beneath, "duct tightness shall be verified by either of the following:" and replace the existing 1. with the following:~~

~~"Postconstruction test: Leakage to the outside of a condition space or total leakage shall be less than or equal to four cfm per 100 square feet of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. across the entire system, including the manufacturer's air handler enclosure. All register boot shall be taped or otherwise sealed during the test.~~

~~Exception: The duct tightness testing is not required for ducts and air handlers located entirely within the building thermal envelope.~~

~~(j)~~(i) Subsection ~~R403.2.3~~, R403.3.5 ~~Building Cavities, is deleted in its entirety and replaced with: "Building framing cavities shall not be used as supply ducts."~~ Exception: Building framing cavities may be used for return ducts if there is no atmospherically vented furnace, boiler, or water heater located in the house outside of a sealed and insulated room that is isolated from inside the thermal envelope and if the duct system has been tested as having a maximum total leakage not greater than 4 cfm/SF. The room walls, floor, and ceilings shall be insulated in accordance with the basement wall requirements of Table R402.1.2.

~~(k)~~ (j) Subsection R403.4.2, Hot Water Pipe Insulation (Prescriptive), is amended as follows:

Delete item number 3, delete item number 9, delete Table R403.4.2 and the text, "All remaining piping shall be insulated to at least R-3 or meet the run length requirements of Table R403.4.2."

~~(l) Table R405.5.2(1) SPECIFICATIONS FOR THE STANDARD REFERENCE AND PROPOSED DESIGNS, amend the table as shown below:~~

~~Building Component~~	~~Standard Reference Design~~	~~Proposed Design~~
~~Thermal distribution systems~~	~~Untested distribution systems: DSE = 0.88~~ ~~Tested Ducts: Leakage rate to outside conditioned space as specified Section R403.2.2(1)~~ ~~Tested duct Location: Conditioned space~~ ~~Tested duct Insulation: in accordance with Section R403.2.1~~	~~Untested distribution systems: DSE from Table R405.5.2(2)~~ ~~Tested Ducts: Tested Leakage rate to outside conditioned space~~ ~~Duct Location: As proposed~~ ~~Duct Insulation: As proposed~~

(k) Subsection R406.3 Energy Rating Index (ERI) In the first line delete RESNET/ICC 301 and replace with ANSI/RESNET/ICC 380-2019.

(l) Appendix RA, Solar Ready Provisions- Detached One- and Two-family Dwellings and Townhouses. Appendix RA may be adopted by a certified city,

county, or town building code jurisdiction. The department shall not apply or enforce Appendix RA.

(2) The purpose of the International Energy Conservation Code is to provide minimum requirements for the design of new buildings and structures and additions to existing buildings, regulating their exterior envelopes and selection of their heating, ventilating, air conditioning, service water heating, electrical distribution and illuminating systems, and equipment for effective use of energy.

(a) The department encourages owners, design professionals, and builders to voluntarily implement greater levels of energy efficiency in building design and construction than those required by the International Energy Conservation Code. Information regarding voluntary building standards for greater levels of energy efficiency can be obtained from the department by contacting the department at the address listed in (3), by telephone at 406-841-~~2053~~ 2056, or at the department's web site, http://bsd.dli.mt.gov/bc/bs_index.asp.

(3) The International Energy Conservation Code is a nationally recognized model code for energy efficient construction of buildings. ~~A copy of the International Energy Conservation Code may be obtained from the Department of Labor and Industry, Building Codes Bureau, P.O. Box 200517, Helena, MT 59620-0517, at cost plus postage and handling. A copy may also be obtained by writing to the International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, or visiting the International Code Council web site at www.ICCsafe.org~~. A copy of the IECC may be obtained from the International Code Council at www.ICCsafe.org .

AUTH: 50-60-203, 50-60-803, MCA
IMP: 50-60-201, 50-60-203, 50-60-803, MCA

REASON: The department is amending (1)(a) through (h) to reflect the adoption of and changes in the 2018 Edition of the International Energy Conservation Code (IECC). The rule amendments are reasonably necessary in (1)(i) through (l) to reflect changes instituted by the Building Codes Advisory Council as related to changes made in the 2018 Edition of the IECC.

The department is amending (2)(a) to accurately reflect the bureau's phone number.

The department is amending (3) to accurately reflect how someone may obtain a copy of the IECC from the ICC website.