

APA-1
07/04

**TRANSMITTAL SHEET FOR
NOTICE OF INTENDED ACTION**

Control No. 305 Department or Agency Alabama Department of Economic and Community
Affairs
Rule No. 305-2-4-.07-.09
Rule Title: Definitions
 New X Amend Repeal Adopt by Reference

Would the absence of the proposed rule significantly harm or endanger the public health, welfare, or safety? NO

Is there a reasonable relationship between the state's police power and the protection of the public health, safety, or welfare? NO

Is there another, less restrictive method of regulation available that could adequately protect the public? NO

Does the proposed rule have the effect of directly or indirectly increasing the costs of any goods or services involved and, if so, to what degree? NO

Is the increase in cost, if any, more harmful to the public than the harm that might result from the absence of the proposed rule? NO

Are all facets of the rulemaking process designed solely for the purpose of, and so they have, as their primary effect, the protection of the public? YES

Does the proposed rule have an economic impact? NO

If the proposed rule has an economic impact, the proposed rule is required to be accompanied by a fiscal note prepared in accordance with subsection (f) of Section 41-22-23, Code of Alabama 1975.

Certification of Authorized Official
I certify that the attached proposed rule has been proposed in full compliance with the requirements of Chapter 22, Title 41, Code of Alabama 1975, and that it conforms to all applicable filing requirements of the Administrative Procedure Division of the Legislative Reference Service.

Signature of certifying officer Edward E. King

Date 11/13/2013

(DATE FILED)
(STAMP)
REC'D & FILED
NOV 13 2013
LEGISLATIVE REF SERVICE

APA-2
07/04

**ALABAMA DEPARTMENT OF ECONOMIC AND COMMUNITY AFFAIRS
ALABAMA ENERGY AND RESIDENTIAL CODES BOARD**

NOTICE OF INTENDED ACTION

RULE NO. & TITLE:

305-2-4-.07 "Definitions"
305-2-4-.08 "Commercial Energy Code"
305-2-4-.09 "Residential Building and Energy Code"

INTENDED ACTION: Amend

SUBSTANCE OF PROPOSED ACTION: The Alabama Energy and Residential Codes Board, under the Alabama Department of Economic and Community Affairs, proposes to amend the rules:

- 305-2-4-.07 "Definitions": The intent of the proposed amendment is to clarify the definitions of "Residential" and "Commercial."
- 305-2-4-.08 "Commercial Energy Code": The intent of the proposed amendment is to clarify which buildings are subject to the Alabama Energy and Residential Codes.
- 305-2-4-.09 "Residential Building and Energy Code": The intent of the proposed amendment is to provide an easier, safer, and cost effective means of insulating the attic access opening while maintaining the intent of the energy code.

TIME, PLACE, MANNER OF PRESENTING VIEWS:

A public hearing will be held on January 16, 2014 at 1:00 pm in Suite 342 of the Alabama Center for Commerce located at 401 Adams Avenue, Montgomery, AL 36104. Copies of the proposed rule can be obtained at <http://adeca.alabama.gov/energycodes>.

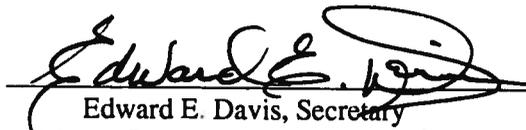
All interested parties must present their views in writing to Heather Goggin, ADECA Energy Division, P.O. Box 5690, Montgomery, AL 36103-5690. Individuals may speak to their comments previously submitted in writing at the public hearing on January 16, 2014.

FINAL DATE FOR COMMENT AND COMPLETION OF NOTICE:

January 16, 2014 at the public hearing

CONTACT PERSON AT AGENCY:

Heather Goggin, ADECA Energy Division
401 Adams Avenue, Suite 560
Montgomery, AL 36104
(334) 242-5330 - Codes.Board@adeca.alabama.gov


Edward E. Davis, Secretary
Alabama Department of Economic and
Community Affairs

305-2-4-.07 Definitions.

(1) Alabama Energy and Residential Codes: The codes adopted by the Alabama Energy and Residential Codes Board and amended by the board.

(2) Commercial: For this code, all buildings not included in the definition of "Residential" and not under the authority of the Alabama Building Commission.

(3) Residential: The energy provisions of this code include ~~R-3 buildings that are not included in the scope of the International Residential Code, as well as R-2 and R-4 buildings three stories or less in height above grade.~~ detached one - and two-family dwellings and multiple single-family dwellings (townhouses) as well as Group R-2, R-3, and R-4 buildings three stories or less in height above grade plane.

(4) Farm Structure: Non-residential structures constructed on a farm for use by the farm.

Author: Karen Clifton; Bret Warren

Statutory Authority: Code of Ala. 1975, §§41-23-80 through 85, as amended.

History: New Rule: Filed April 5, 2012; effective May 10, 2012.

Amended: Effective Date:

305-2-4-.08 Commercial Energy Code. The 2009 International Energy Conservation Code (IECC) shall be implemented and enforced for Commercial buildings. ~~three stories and above including multi-family dwellings.~~

Author: Karen Clifton; Bret Warren

Statutory Authority: Code of Ala. 1975, §§

History: New Rule: Filed April 5, 2012; effective May 10, 2012.

Amended: Effective Date:

305-2-4-.09 Residential Building and Energy Codes. The 2009 International Residential Code (IRC) as modified below; and sections of the International Energy Conservation Code (IECC) as modified below:

(1) IRC CHAPTER 3 BUILDING PLANNING

(a) SECTION R302 FIRE-RESISTANT CONSTRUCTION.

1. R302.2 Townhouses.

(i) Exception: A common 2-hour fire resistance-rated wall assembly tested in accordance with ASTM E 119 or UL 263 is permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. The wall shall be rated for fire exposure from both sides and shall extend to and be tight against exterior walls and the

underside of the roof sheathing. Electrical installations shall be installed in accordance with Chapters 34 through 43. Penetrations of electrical outlet boxes shall be in accordance with Section R302.4.

(b) SECTION R313 AUTOMATIC FIRE SPRINKLER SYSTEMS.

1. R313.1 Design and Installation. Where installed, automatic residential fire sprinkler systems shall be installed in accordance with Section P2904 or NFPA 13D.

(2) IRC CHAPTER 11 ENERGY EFFICIENCY

(a) N1101.7.1 Protection of exposed foundation insulation. Section deleted.

(b) N1101.8 Above Code Programs. Above code programs shall be permitted upon approval by the Alabama Residential and Energy Codes Board.

(c) N1101.9 Certificate. A permanent certificate shall be permitted to be posted on or in the electrical distribution panel. If posted, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace and/or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric base board heaters.

(d) N1102.1 Insulation and Fenestration Requirements by Component. Delete and substitute Table 402.1.1 Insulation and Fenestration Requirements by Component from the 2009 IECC. See Appendix A of this code.

(e) N1102.2.3 Access Hatches and Doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weather-stripped and insulated to a level in accordance with the following insulation values:

1. Hinged vertical doors shall have a maximum U-Factor of U-0.20 (R-5 minimum);

2. Hatches/scuttle hole covers shall have a maximum U-Factor of U-0.05 (R-19 minimum); and

3. Pull down stairs shall have a maximum U-Factor of U-0.20 with a minimum of 75 percent of the panel area having (R-5 minimum) insulation.

Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

~~(e)~~(f) N1102.2.8 Slab-on-grade floors. Section deleted.

~~(f)~~(g) N1103.1.1 Programmable Thermostats. Section deleted.

~~(g)~~(h) N1103.2.1 Insulation. All ducts not in a conditioned space shall be insulated to a minimum of R-6. Effective July 1, 2013 all supply ductwork in attics shall be insulated to a minimum of R-8.

Exception: Ducts or portions thereof located completely inside the building thermal envelope.

(3) IRC CHAPTER 15 EXHAUST SYSTEMS.

(a) M1502.4.4.1 Specified length. The maximum length of the exhaust duct shall be 35 feet (10,668mm) from the connection to the terminus of the transition duct from the dryer to the outlet terminal. Where fittings are utilized, the maximum length of the exhaust duct shall be reduced in accordance with Table M1502.4.4.1.

(4) IRC CHAPTER 16 DUCT SYSTEMS.

(a) M1601.4.1 Joints and seams. Joints of duct systems shall be made substantially airtight by means of tapes, mastics, liquid sealants, gasketing or other approved closure systems. Closure systems used with rigid fibrous glass ducts shall comply with UL181A and shall be marked 181A-P for pressure-sensitive tape, 181A-M for mastic or 181A-H for heat-sensitive tape. Closure systems used with flexible air ducts and flexible air connectors shall comply with UL 181B and shall be marked 181B-FX for pressure-sensitive tape or 181B-M for mastic. All metal to metal connections shall be mechanically fastened. All duct connections shall be sealed. Mechanical fasteners for use with flexible nonmetallic air ducts shall comply with UL181B and shall be marked 181B-C. Crimp joints for round metal ducts shall have a contact lap of at least 1 1/2 inches (38 mm) and shall be

mechanically fastened by means of at least three sheet-metal screws or rivets equally spaced around the joint. Closure systems used to seal metal ductwork shall be installed in accordance with the manufacturer's installation instructions.

(b) Add new section. M1601.4.1.1 Duct leakage. Duct leakage testing shall not be required prior to July 1, 2013. Leakage of ducts to unconditioned space shall be less than or equal to 8 cfm (226.5 L/min) per 100 ft² (9.29 m²) of conditioned floor area or a total leakage less than or equal to 12 cfm (12 L/min) per 100 ft² (9.29m²) of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25 Pa) across the entire system, including the manufacturer's air handler enclosure.

Exception: Duct tightness test is not required if the air handler and all ducts are located within conditioned space.

(5) IRC CHAPTER 24 FUEL GAS.

(a) SECTION G2418 (407) PIPING SUPPORT

1. G2418.2 (407.2) Design and installation. Piping shall be supported with metal pipe hooks, pipe straps, bands, brackets, hangers, building structural components, or other approved methods suitable for the size of piping, of adequate strength and quality, and located at intervals so as to prevent or damp out excessive vibration. Piping shall be anchored to prevent undue strains on connected equipment and/or appliances and shall not be supported by other piping. Manufactured pipe hangers and supports shall conform to the requirements of MSS SP-58 and shall be spaced in accordance with Section G2424. Supports, hangers, and anchors shall be installed so as not to interfere with the free expansion and contraction of the piping between anchors. All parts of the supporting equipment shall be designed and installed so they will not be disengaged by movement of the supported piping.

(6) Part VIII-Electrical

(a) IRC CHAPTER 34 GENERAL REQUIREMENTS

1. SECTION E3401 GENERAL

(i) E3401.1 Applicability. Electrical installations in compliance with the 2008 National Electrical Code® (NEC®) (National Fire Protection Association [NFPA 70-2008]) or later editions shall be permitted.

(7) Additional energy provisions from the 2009 International Energy Conservation Code as modified below:

(a) IECC Chapter 4 Residential Energy Efficiency

1. 401.3 Certificate. A permanent certificate shall be permitted to be posted on or in the electrical distribution panel. If posted, the certificate shall not cover or obstruct the visibility of the circuit directory label, service disconnect label or other required labels. The certificate shall be completed by the builder or registered design professional. The certificate shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and/or floor) and ducts outside conditioned spaces; U-factors for fenestration; and the solar heat gain coefficient (SHGC) of fenestration. Where there is more than one value for each component, the certificate shall list the value covering the largest area. The certificate shall list the types and efficiencies of heating, cooling and service water heating equipment. Where a gas-fired unvented room heater, electric furnace and/or baseboard electric heater is installed in the residence, the certificate shall list "gas-fired unvented room heater," "electric furnace" or "baseboard electric heater," as appropriate. An efficiency shall not be listed for gas-fired unvented room heaters, electric furnaces or electric base board heaters.

2. 401.4 Above Code Programs. Above code programs shall be permitted upon approval by the Alabama Residential and Energy Codes Board.

3. 402.2.3 Access Hatches and Doors. Access doors from conditioned spaces to unconditioned spaces (e.g., attics and crawl spaces) shall be weather-stripped and insulated to a level in accordance with the following insulation values:

(i) Hinged vertical doors shall have a maximum U-Factor of U-0.20 (R-5 minimum);

(ii) Hatches/scuttle hole covers shall have a maximum U-Factor of U-0.05 (R-19 minimum); and

(iii) Pull down stairs shall have a maximum U-Factor of U-0.20 with a minimum of 75 percent of the panel area having (R-5 minimum) insulation.

Access shall be provided to all equipment that prevents damaging or compressing the insulation. A wood framed or equivalent baffle or retainer is required to be provided when loose fill insulation is installed, the purpose of which is to prevent the loose fill insulation from spilling into the living space when the attic access is opened, and to provide a permanent means of maintaining the installed R-value of the loose fill insulation.

~~3-4.~~ 402.2.8 Slab-on-grade floors. Section deleted.

~~4-5.~~ 403.1.1 Programmable thermostat. Section deleted.

~~5-6.~~ 403.2.1 Insulation. All ducts not in a conditioned space shall be insulated to a minimum of R-6. Effective July 1, 2013 all supply ductwork in attics shall be insulated to a minimum of R-8.

~~6-7.~~ 403.2.2 Sealing (Mandatory) All ducts, air handlers, filter boxes and building cavities used as ducts shall be sealed. Joints and seams shall comply with Section M1601.4.1 of the International Residential Code.

(i) Effective July 1, 2013, duct tightness shall be verified by either of the following:

(I) Post-construction test: Leakage to outdoors shall be less than or equal to 8 cfm per 100 ft² of conditioned floor area or total leakage less than or equal to 12 cfm per 100 ft² of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25Pa) across the entire system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test.

(II) Rough-in test: Total leakage shall be less than or equal to 6 cfm per 100 ft² of conditioned floor area when tested at a pressure differential of 0.1 inches w.g. (25Pa) across the roughed in system, including the manufacturer's air handler enclosure. All register boots shall be taped or otherwise sealed during the test. If the air handler is not installed at the time of the test, total leakage shall be less than or equal to 4 cfm per 100 ft² of conditioned floor area.

(ii) Exceptions: Duct tightness test is not required if the air handler and all ducts are located within conditioned space.

~~7-8.~~ 403.9 Pools (Mandatory). Section deleted.

~~8-9.~~ 403.9.1 Pool Heaters. Section deleted.

~~9-10.~~ 403.9.2 Time Switches. Section deleted.

~~10-11.~~ 403.9.3 Pool Covers. Section deleted

(b) IECC CHAPTER 5 COMMERCIAL ENERGY EFFICIENCY

1. 504.7.1 Pool Heaters. Pool heaters shall comply with ICC Fuel Gas Code or National Fire Protection Association (NFPA) 58 as appropriate, and with the National Electric Code (NEC).

Author: Karen Clifton; Alan Meeks

Statutory Authority: Code of Ala. 1975, §§41-23-82, as amended.

History: New Rule: Filed April 5, 2012; effective May 10, 2012.

Amended: Effective Date: