



**APPENDIX C  
CODE CHANGE PROPOSAL  
NORTH CAROLINA  
BUILDING CODE COUNCIL**

Item B-4

325 North Salisbury Street, Room 5\_44  
Raleigh, North Carolina 27603  
(919) 647-0009  
carl.martin@ncdoi.gov

Petition for Rule Making

Item Number \_\_\_\_\_

Granted by BCC \_\_\_\_\_  
Denied by BCC \_\_\_\_\_

Adopted by BCC \_\_\_\_\_  
Disapproved by BCC \_\_\_\_\_

Approved by RRC \_\_\_\_\_  
Objection by RRC \_\_\_\_\_

PROPONENT: Julius Ballanco P.E. PHONE: (219) 922-6171  
REPRESENTING: JB Engineering and Code Consulting, P.C.  
ADDRESS: 1661 Cardinal Dr.  
CITY: Munster STATE: IN ZIP: 46321  
E-MAIL: JBEngineer@aol.com FAX: (219) 922-6172

North Carolina State Building Code, 2024 North Carolina Mechanical Code – Chapter 15

**CHECK ONE:**  [X] Revise section to read as follows:  [ ] Delete section and substitute the following:  
 [ ] Add new section to read as follows:  [ ] Delete section without substitution:

~~LINE THROUGH MATERIAL TO BE DELETED~~

UNDERLINE MATERIAL TO BE ADDED

Please type. Continue proposal or reason on plain paper attached to this form. See reverse side for instructions.

ASHRAE  
ASHRAE 1791 Tullie Circle, NE  
Atlanta, GA 30329

15—~~2019~~2022 Safety Standard for Refrigeration Systems 1101.1, 1106.4.2

34—~~2019~~2022 Designation and Safety Classification of Refrigerants 1102.2.1, 1103.1, Table 1103.1

**UL**           UL LLC  
 333 Pfingsten Road  
 Northbrook, IL 60062-  
 2096

UL/CSA 60335-2-40-2019/2022   Household And Similar Electrical Appliances - Safety — Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers   908.1, 916.1, 918.1, 918.2, Table 1101.2

UL/CSA 60335-2-89-17/2021   Household And Similar Electrical Appliances - Safety — Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Units or Compressor   Table 1101.2

Will this proposal change the cost of construction?   Decrease [ ]   Increase [ ]   No   [ X ]  
 Will this proposal increase to the cost of a dwelling by \$80 or more?   Yes [ ]   No   [ X ]  
 Will this proposal affect the Local or State funds?   Local [ ]   State [ ]   No   [ X ]  
 Will this proposal cause a substantial economic impact (≥\$1,000,000)?   Yes [ ]   No   [ X ]

- Non-Substantial – Provide an economic analysis including benefit/cost estimates.
- Substantial – The economic analysis must also include 2-alternatives, time value of money and risk analysis.
- Pursuant to §143-138(a1)(2) a cost-benefit analysis is required for all proposed amendments to the NC Energy Conservation Code. The Building Code Council shall also require same for the NC Residential Code, Chapter 11.

**REASON:**

These proposed amendments are based on the 2024 North Carolina Mechanical Code language but include updates based on approved 2024 ICC International Mechanical Code changes to these referenced standards – as related to A2L refrigerants.

Updating noted standards to the 2022 editions are needed because computer room air conditioners and data center air conditioners using A2L refrigerants are not addressed in the UL/CSA 60335-2-40-2019 standard. These are only addressed in the UL/CSA 60335-2-40-2022 edition. The ASHRAE 15-2022 standard has revised installation requirements for equipment using A2L refrigerants. The ASHRAE 34-2022 standard has new refrigerants added.

UL 60335-2-89 is being added to allow for the use of new Low GWP, Group A2L refrigerants to be used in refrigeration equipment. This UL/CSA 60335-2-89 standard was added in the 2021 IMC but updated to the 2021 edition in the 2024 IMC.

I am simply bringing them forward for early adoption to help speed the transition to new lower GWP A2L refrigerants until such time as North Carolina adopts the 2024 I-Codes.

Signature:

*Julius Ballanco*

Date: 5/18/2023

FORM 11/26/19

## INSTRUCTIONS

**Each proposed Code change request shall comply with the following policies:**

**Rule 1:** The Original and twenty-two (22) copies of the proposed Petition for Rule-Making along with supporting documentation shall be filed with the Building Code Council Secretary. Submit one (1) electronic copy via email.

**Rule 2:** The filing shall be received by the first day of the month prior to the quarterly scheduled meeting date. Example: A December meeting date will require filing by November 1 prior to the meeting.

**Rule 3:** Each request shall be typewritten on this form and shall contain the following:

- (1) The proposed rule change must be set forth in full and contain explicit reference to the affected section or sections of the Code.
- (2) The request shall state the reasons for the proposed rule change with supporting documentation.
- (3) The proposed rule change shall comply with the standards set forth in GS 143-138(c) and reference to the particular standards shall be set forth in the request for the amendment.
- (4) The proposed rule change shall contain an economic impact analysis as required by GS 143-138(a).
- (5) A proposed rule change to the NC Energy Conservation Code shall have an accompanying cost-benefit analysis as required by GS 143-138(a1)(2).

**Rule 4:** When a request is improperly filed or not in accordance with all the rules listed above, the BCC Secretary shall reject the submittal and notify the applicant of the proper procedure to follow.

**Rule 5:** Upon the proper filing of a request, the BCC Secretary shall forward one copy of said request to each council member prior to the scheduled meeting date. Persons filing proposed petitions are hereby notified of the place and time of the scheduled hearings. The BCC Secretary shall cause to be published the notice of public hearing as specified in GS 143-138(a).

**Rule 6:** The Council shall either Grant or Deny the proposed Petition for Rulemaking at the meeting following receipt of the proposed rule change. The Council will take no further action on items that are Denied. Granted items may be referred to Committee for review.

**Rule 7:** The Council will hold a public hearing on Granted items at the next quarterly scheduled meeting. The Council will take final action on Granted items at the next quarterly scheduled meeting after the public hearing.

**Timeline Example**

<b>Petition received:</b>	<b>February 1</b>
<b>Petition Granted:</b>	<b>March BCC meeting</b>
<b>Notice of Hearing published:</b>	<b>April NC Register</b>
<b>Committee review:</b>	<b>May - June</b>
<b>Hearing held:</b>	<b>June BCC meeting</b>
<b>Final Adoption:</b>	<b>September BCC meeting</b>
<b>Rules Review Meeting:</b>	<b>November RRC meeting</b>
<b>Approved:</b>	<b>December 1</b>