



BRIAN TAYLOR
STATE FIRE MARSHAL

February 23, 2026

Mr. Gary Wheeler
Chief Mechanical / Multi-Trade Inspector
Durham City-County Building & Safety Department
101 City Hall Plaza, Ground Floor
St. 400, Durham, N.C. 27701

RE: 2018 NC Residential Code (NCRC), Section G2435 Vented Gas Fireplace Heaters

Mr. Wheeler:

This letter is in response to your request for a formal interpretation from the Office of State Fire Marshal (OSFM) dated 9/19/25 and received by OSFM the same day. Requests are addressed below in the order in which they are posed.

Stated in relevant parts of the documentation received in the request:

“My request for an interpretation is going to be in 2 parts. The first part of my request pertains to the field-constructed enclosure containing the plenum for non-ducted passive heat fireplaces. Would the ANSI standard (ANSI Z21.88) that the fireplace appliance is constructed under also govern the field-constructed enclosure containing the plenum, therefore making the field-constructed enclosure part of the appliance? Most field-constructed enclosures containing these plenums are made of exposed 2x4 wood studs open to the plenum and standard residential sheetrock on the outside of the enclosure, which the 2018 NCRC strictly prohibits the use of gypsum board for plenums in systems where the air temperatures exceed 125 degrees Fahrenheit. There is documented evidence from the manufacturer's engineering letters and the ANSI and UL testing procedures that verifies the temperatures inside these plenums are well in excess of 125 degrees.

Definition of appliance per 2018 NCRC- A device or apparatus that is manufactured and designed to utilize energy and for which this code provides specific requirements.

The second part of my request is: If the enclosure mentioned above cannot be governed by ANSI standard Z21.88 and therefore not be considered part of the appliance, we would not be able to apply section M1306.1 of the 2018 NCRC, and then wouldn't the NC Residential Code govern the materials used to construct the enclosure? Specifically, 2018 NCRC section M1601.1.1 paragraphs 5 and 7.”

Remarks:

Attachment A comprises of the request for formal interpretation as well as all supporting information submitted with the request.

OFFICE OF STATE FIRE MARSHAL

1202 MAIL SERVICE CENTER | RALEIGH NC 27699 -1202 | TEL 919.647.0000 | FAX 866.851.6508 | NCOSFM.GOV



Code Analysis: 2018 NCRC, Section G2435 and 2018 NC Fuel Gas Code (NCFGC), Section 605 notes that vented gas fireplace heaters shall be installed in accordance with the manufacturer’s instructions, shall be listed in accordance with ANSI Z21.88 and shall be equipped with flame safeguard devices. 2018 NCRC, Section G2408.1 and 2018 NCFGC, Section 305.1 notes that equipment and appliances shall be installed as required by the terms of their approval, in accordance with conditions of listing, the manufacturer’s installation instructions and this code. The Chapter 2 Definitions of “manufacturer’s installation instructions”, “listed” and “labeled” within the 2018 NCRC and NCFGC establishes that the manufacturer’s installation instructions for a vented gas fireplace heater are part of the conditions of the listing and labeling under ANSI Z21.88.

....

G2435.1 (605.1) General. Vented gas *fireplace* heaters shall be installed in accordance with the manufacturer’s instructions, shall be tested in accordance with ANSI Z21.88 and shall be designed and equipped as specified in Section G2432.2.

....

G2432.2 (602.2) Flame safeguard device. Decorative *appliances* for installation in *approved* solid fuel-burning *fireplaces*, with the exception of those tested in accordance with ANSI Z21.84, shall utilize a direct ignition device, an ignitor or a *pilot* flame to ignite the fuel at the *main burner*, and shall be equipped with a *flame safeguard* device. The *flame safeguard* device shall automatically shut off the fuel supply to a *main burner* or group of *burners* when the means of ignition of such *burners* becomes inoperative.

....

605.1 General. Vented gas fireplace heaters shall be installed in accordance with the manufacturer’s instructions, shall be tested in accordance with ANSI Z21.88 and shall be designed and equipped as specified in Section 602.2.

....

602.2 Flame safeguard device. Decorative appliances for installation in *approved* solid fuel-burning fireplaces, with the exception of those tested in accordance with ANSI Z21.84, shall utilize a direct ignition device, an ignitor or a pilot flame to ignite the fuel at the main burner, and shall be equipped with a flame safeguard device. The flame safeguard device shall automatically shut off the fuel supply to a main burner or group of burners when the means of ignition of such burners becomes inoperative

....

G2408.1 (305.1) General. *Equipment* and *appliances* shall be installed as required by the terms of their approval, in accordance with the conditions of listing, the manufacturer’s instructions and this code. Manufacturer’s installation instructions shall be available on the job site at the time of inspection. Where a code provision is less restrictive than the conditions of the listing of the *equipment* or *appliance* or the manufacturer’s installation instructions, the conditions of the listing and the manufacturer’s installation instructions shall apply.



Unlisted *appliances approved* in accordance with Section G2404.3 shall be limited to uses recommended by the manufacturer and shall be installed in accordance with the manufacturer's instructions, the provisions of this code and the requirements determined by the *code official*.

....

305.1 General. *Equipment* and appliances shall be installed as required by the terms of their approval, in accordance with the conditions of listing, the manufacturer's instructions and this code. Manufacturers' installation instructions shall be available on the job site at the time of inspection. Where a code provision is less restrictive than the conditions of the listing of the *equipment* or *appliance* or the manufacturer's installation instructions, the conditions of the listing and the manufacturer's installation instructions shall apply.

Unlisted appliances *approved* in accordance with Section 301.3 shall be limited to uses recommended by the manufacturer and shall be installed in accordance with the manufacturer's instructions, the provisions of this code and the requirements determined by the code official.

....

[RB]MANUFACTURER'S INSTALLATION INSTRUCTIONS. Printed instructions included with *equipment* as part of the conditions of their *listing* and *labeling*.

.....

[RB]LISTED. Appliances, *equipment*, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of *listed equipment* or materials or periodic evaluation of services and whose listing states either that the appliance, *equipment*, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

.....

[RB]LABELED. Appliances, *equipment*, materials or products to which have been affixed a *label*, seal, symbol or other identifying *mark* of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the *labeled* items and whose labeling indicates either that the appliance, *equipment*, material or product meets identified standards or has been tested and found suitable for a specified purpose.

.....

Conclusions: The ANSI Z21.88 standard does not automatically govern a field-constructed passive heat enclosure for a vented gas fireplace heater.

If the field-constructed passive heat enclosure is specifically part of the manufacturer's installation instructions as listed and labeled under ANSI Z21.88, the vented gas fireplace heater has been tested and



approved as such by the certifying agency and therefore the field-constructed passive heat enclosure is considered a part of the vented gas fireplace heater.

If the field-constructed passive heat enclosure is not specifically part of the manufacturer's installation instructions as listed and labeled under ANSI Z21.88, the field-constructed passive heat enclosure is not considered a part of the vented gas fireplace heater and would be subject to the applicable code sections within the 2018 NCRC or 2018 NCFGC.

Sincerely,

David Rittlinger, PE, LEED AP
Division Chief – Codes & Interpretations
North Carolina Office of State Fire Marshal

cc: Nathan Childs, NCDOJ, counsel for NC Building Code Council, nchilds@ncdoj.gov
Nicki Shaffer, NCDOJ, counsel for NC Residential Code Council, wshaffer@ncdoj.gov
Pak Yip, NCOSFM, Chief Code Consultant, pak.yip@ncdoj.gov

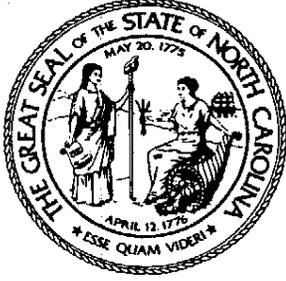




ATTACHMENT A

(see attached pdf)





**APPENDIX E
 APPEALS
 NORTH CAROLINA
 BUILDING CODE COUNCIL
 1429 Rock Quarry Road, Suite 105
 Raleigh, North Carolina 27610
 (919) 647-0008
 david.rittlinger@ncdoi.gov**

APPEAL TO NCDOI/NCBCC Hearing Date _____/_____/_____

GS 153A-374, GS 160A-434
 Formal Interpretation by NCDOI _____
 Appeal of Local Decision to NCDOI _____

GS 143-140, GS 143-141
 Appeal of Local Decision to NCBCC _____
 Appeal of NCDOI Decision to NCBCC _____

APPELLANT Gary Wheeler **PHONE** (919) 943-2729 - **x**
REPRESENTING: Durham City/County Department of Building and Safety
ADDRESS: 101 City Hall Plaza
CITY Durham **STATE** NC **ZIP** 27701
E-MAIL Gary.Wheeler@durhamnc.gov **FAX** () - _____

North Carolina State Building Code, Volume 2018 NCRC - Section M1306.1 M1601.1.1

REQUEST ONE: **Formal Interpretation by NCDOI** **Appeal of Local Decision to NCBCC**
 Appeal of Local Decision to NCDOI **Appeal of NCDOI Decision to NCBCC**

Type or print. Include all background information as required by the referenced General Statutes and the attached policies. Attach additional supporting information.

My request for an interpretation is going to be in 2 parts. The first part of my request pertains to the field-constructed enclosure containing the plenum for non-ducted passive heat fireplaces.

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APPEAL TO NCDOI/NCBCC

Signature Gary Wheeler

DATE: 9/19/25

FORM 3/14/17

202.9 Appeals

202.9.1 Engineering Division. A written technical interpretation shall be provided as specified in Section 203.2.1.2. Any person may appeal in writing an order, decision, or determination pertaining to the code or any state building law by filing written notice with the Commissioner of Insurance or his designee within ten (10) days after the order, decision, or determination. A copy of the appeal shall be furnished to each party.

(General Statutes 143-140, 153A-374 and 160A-434)

203.2.1 Interpretations

203211 Informal Interpretations. The Engineering Division shall provide informal interpretations on code related matters either by e-mail, letter or telephone. These informal interpretations may be accepted by the local code enforcement official or party requesting the interpretation. Either party may request a formal interpretation of the code.

203212 Formal Interpretations. Any person may request in writing a formal interpretation of the code. The request shall be addressed to the Chief Code Consultant for the Department of Insurance. The request shall be specific and shall reference the code sections in question. All formal interpretations shall be in writing. A formal interpretation shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. Formal interpretations determined to be of a general nature may be posted on the Department website.

(General Statute 143-140)

203.2.2 Appeals. Any person may appeal in writing an order, decision, or determination of a code enforcement official pertaining to the code or any state building law. The appeal shall be addressed to the Chief Engineer for the Department of Insurance by filing written notice within ten (10) days after the order, decision, or determination. The appeal shall contain the type and size of the building in question, the location of the building, and shall reference the code sections in question. The decision shall be in writing and shall set forth the facts found. The decision rendered shall be based on the technical provisions of the code, public health and safety and shall be construed liberally to those ends. A decision shall be binding on all parties unless appealed to the Building Code Council as specified in Section 201.9.2. A copy of the appeal and written decision shall be furnished to each party. (General Statutes 153A-374 and 160A-434)

202.9.2 Building Code Council. The Building Code Council shall hear appeals from the decisions of State enforcement agencies relating to any matter related to the code. Any person wishing to appeal a decision of a State enforcement agency to the Building Code Council shall give written notice of appeal as follows:

202.9.2.1 Twenty one (21) copies including an original of the Notice of Appeal shall be filed with the Building Code Council c/o NC Department of Insurance, Engineering Division, 325 North Salisbury Street, Room 5_44, Raleigh, NC 27603 and one (1) copy shall be filed with the State enforcement agency from which the appeal is taken.

202.9.2.2 The Notice of Appeal shall be received no later than thirty (30) days from the date of the decision of the State enforcement agency.

202.9.2.3 The Notice of Appeal shall be legibly printed, typewritten or copied and shall contain the following:

- (1) Name, address of the party or parties requesting the appeal.
- (2) The name of the State enforcement agency, the date of the decision from which the appeal is taken, and a copy of the written decision received from the enforcement agency.
- (3) The decision from which the appeal is taken shall be set forth in full in the Notice of Appeal or a copy of the decision shall be attached to all copies of the Notice of Appeal.
- (4) The contentions and allegations of fact must be set forth in full in a clear and concise manner with reference to the sections of the code in controversy.
- (5) The original Notice of Appeal shall be signed by the party or parties filing appeal.
- (6) The Notice of Appeal shall be received by the first day of the month prior to the Building Code Council's quarterly scheduled meeting in order to be placed on the agenda for that meeting. The Chairman may schedule a special meeting to hear an appeal.

202.9.2.4 Upon the proper filing of the Notice of Appeal, the Building Code Council Secretary shall forward one (1) copy of the Notice of Appeal to each member of the Building Code Council. The Chairman may appoint a Hearing Committee to hear appeals. The Secretary shall send notice in writing to the party or parties requesting an appeal and to the Building Code Council Hearing Committee members at least fifteen (15) days prior to the Hearing Committee meeting. A written decision of the Hearing Committee meeting shall be provided to all Building Code Council Members. The actions of the Hearing Committee shall be final, unless appealed to the full Building Code Council in writing within 30 days of the Hearing Committee's action. If a Hearing Committee consists of at least seven Council members, it will constitute a quorum of the full Council. Further appeals shall be as specified in Section 202.9.3.

202.9.2.5 The Building Code Council shall, upon a motion of the State enforcement agency or on its own motion, dismiss appeals for the following reasons:

- (1) Not pursued by the appellant or withdrawn;
- (2) Appeal not filed in accordance with these rules; or
- (3) Lack of jurisdiction.

202.9.2.6 When the Building Code Council finds that a State enforcement agency was in error in its interpretation of the code, the Building Code Council shall remand the case to the agency with instructions to take such actions as the Building Code Council directs. When the Building Code Council finds on appeal that materials or methods of construction proposed are equivalent to those required by the code, the Building Code Council shall remand the case to the State enforcement agency with instructions to permit the use of such materials or methods of construction. The Building Code Council shall immediately initiate procedures for amending the code to permit the use of such materials or methods of construction.

202.9.2.7 The Building Code Council shall provide a written decision setting forth the findings of fact and the Building Code Council's conclusions to each party or parties filing the appeal and to the State enforcement agency from which the appeal was taken.

202.9.3 Superior Court. Whenever any person desires to appeal a decision of the Building Code Council or a decision of a State or local enforcement agency, he may appeal either to the Wake County Superior Court or the Superior Court of the county in which the proposed building is to be situated in accordance with the provisions of Chapter 150B of the General Statutes.
(General Statute 143-141(d))