

TEMPORARY RULE

RRC STAFF OPINION

PLEASE NOTE: THIS COMMUNICATION IS EITHER 1) ONLY THE RECOMMENDATION OF AN RRC STAFF ATTORNEY AS TO ACTION THAT THE ATTORNEY BELIEVES THE COMMISSION SHOULD TAKE ON THE CITED RULE AT ITS NEXT MEETING, OR 2) AN OPINION OF THAT ATTORNEY AS TO SOME MATTER CONCERNING THAT RULE. THE AGENCY AND MEMBERS OF THE PUBLIC ARE INVITED TO SUBMIT THEIR OWN COMMENTS AND RECOMMENDATIONS (ACCORDING TO RRC RULES) TO THE COMMISSION.

AGENCY: NC Building Code Council

RULE CITATION: 2012 NC Energy Conservation and Residential Codes

Chapters 2, 4 and 11, Low Emissivity Fenestration Products

RECOMMENDED ACTION:

- Approve, but note staff's comment
- Decline to approve, based on:
 - Lack of statutory authority
 - Unclear or ambiguous
 - Unnecessary
- Failure to comply with the APA
- Extend the period of review

COMMENT:

Staff recommends the Commission decline to approve the temporary rules filed by the NC Building Code Council, finding the Council has not shown compliance with G.S. 150B-21.1. Specifically, staff does not believe the agency has shown the need for temporary rules under G.S. 150B-21.1(a). Staff bases this recommendation upon the information submitted by the agency in its Temporary Rulemaking Findings of Need, filed September 11, 2014.

G.S. 150B-21.1(a) states, in relevant part:

§ 150B-21.1. Procedure for adopting a temporary rule.

(a) Adoption. – An agency may adopt a temporary rule when it finds that adherence to the notice and hearing requirements of G.S. 150B-21.2 would be contrary to the public interest and that the immediate adoption of the rule is required by one or more of the following:

- (1) A serious and unforeseen threat to the public health, safety, or welfare.

In order for the Council to show compliance with the APA for a temporary rule, they must show that the longer notice and hearing requirements of permanent rulemaking are contrary to the public interest and that immediate adoption of the rule is required by specific circumstances.

Amanda J. Reeder
Commission Counsel
Issued September 15, 2014

In its Findings of Need submission, the Council has stated that the reason for the immediate adoption is that there is a serious and unforeseen threat to the public health, safety or welfare. [G.S. 150B-21.1(a)(1).] The explanation of this threat is “[The agency] now [has] information that reflective energy from some Low-E windows can cause damage to property and may have the potential to create a fire hazard.” No additional information is supplied in or attached to the Findings of Need. Staff does not believe this statement sets forth sufficient information to show that there is a serious and unforeseen threat to the public health, safety or welfare.

The agency further states that immediate adoption is necessary because “Citizens of North Carolina, as well as other states, have been plagued by documented cases of intense reflective energy from Low-E windows causing damage to vinyl siding on homes and plastic parts of automobiles.” Staff notes that the agency claims the temporary rule is necessary due to a serious and unforeseen threat to the public health, safety or welfare. This statement addresses property damage. While staff does not dispute that property damage is significant, staff does not believe this fits into the criteria of public health, safety or welfare.

The Council further states that it is aware of four documented cases of fires caused by similar reflective energy. This certainly could constitute a public safety concern; however, the Council goes on to state that these products were recalled, and does not state that the products are still available.

The Council concludes its explanation for the need for immediate adoption by stating, “Given the prevalence of this problem and concern that intense reflective energy may have the potential to create a fire hazard, the [Council] seeks to remove the mandatory requirement for Low-E glass in the North Carolina Residential Code until a solution can be found to eliminate this potential hazard.”

Staff understands and appreciates the concerns of the agency. However, staff does not believe this Findings of Need, taken as a whole, states a definitive serious and unforeseen threat to the public health, safety or welfare.

Traditionally, the Commission has given deference to an agency’s assertions that temporary rules are needed. However, G.S. 150B-21.1 puts the burden on the agency to show the need for the temporary rule. Further, G.S. 150B-21.1(b) specifically charges the Commission in its review to determine whether the information in the Findings of Need meets the criteria to qualify as a temporary rule. Staff does not believe that the Findings of Need as submitted on September 11, 2014, makes a sufficient showing that temporary rules are needed to address a serious and unforeseen threat to the public health, safety or welfare.

Therefore, staff recommends the Commission decline to approve the temporary rules, finding that the Findings of Need submitted by the agency does not set forth sufficient grounds to show that the agency’s rules complied with G.S. 150B-21.1(a).

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: Findings of Need Form

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

NOTE WELL: This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.

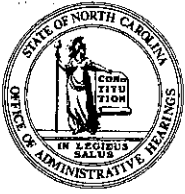
The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In Box 5, Item b, please change the date that the OAH published the Temporary Rule on the OAH website to July 1, 2014.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014



TEMPORARY RULE-MAKING FINDINGS OF NEED

[Authority G.S. 150B-21.1]

ORIGINAL

9/11/14

OAH USE ONLY

VOLUME:

ISSUE:

1. Rule-Making Agency: NC Building Code Council

2. Rule citation & name: 2012 NC Energy Conservation and Residential Codes Chapters 2, 4 and 11, Low Emissivity Fenestration Product

3. Action: Adoption Amendment Repeal

4. Was this an Emergency Rule: Yes No Effective date: July 2, 2014

5. Provide dates for the following actions as applicable:

- a. Proposed Temporary Rule submitted to OAH: June 24, 2014
- b. Proposed Temporary Rule published on the OAH website: August 1, 2014
- c. Public Hearing date: September 9, 2014
- d. Comment Period: July 1 through August 8, 2014
- e. Notice pursuant to G.S. 150B-21.1(a3)(2): Notified persons on the mailing list on July 2, 2014.
- f. Adoption by agency on: September 9, 2014
- g. Proposed effective date of temporary rule [if other than effective date established by G.S. 150B-21.1(b) and G.S. 150B-21.3]: October 1, 2014
- h. Rule approved by RRC as a permanent rule:

FILED
2014 SEP 11 PM 4:24
OFFICE OF
ADMIN HEARINGS

6. Reason for Temporary Action. Attach a copy of any cited law, regulation, or document necessary for the review.

- A serious and unforeseen threat to the public health, safety or welfare.
- The effective date of a recent act of the General Assembly or of the U.S. Congress.
Cite:
Effective date:
- A recent change in federal or state budgetary policy.
Effective date of change:
- A recent federal regulation.
Cite:
Effective date:
- A recent court order.
Cite order:
- State Medical Facilities Plan.
- Other:

Explain:

We now have information that reflective energy from some Low-E windows can cause damage to property and may have the potential to create a fire hazard.

The Council has simultaneously initiated an Emergency Rule change similar to the Temporary Rule and will move quickly to develop a Permanent Rule to address the issue.

7. Why is adherence to notice and hearing requirements contrary to the public interest and the immediate adoption of the rule is required?

Citizens of North Carolina, as well as other states, have been plagued by documented cases of intense reflective energy from Low-E windows causing damage to vinyl siding on homes and plastic parts of automobiles. The Building Code Council is now aware of four documented cases of fires being caused by similar reflective energy involving Four Seasons and Cardinal IG Co. In these four cases, the Consumer Products Safety Commission, in cooperation with the manufacturer, issued a voluntary recall. Given the prevalence of this problem and concern that intense reflective energy may have the potential to create a fire hazard, the North Carolina Building Code Council seeks to remove the mandatory requirement for Low-E glass from the North Carolina Residential Code until a solution can be found to eliminate this potential hazard.

8. Rule establishes or increases a fee? (See G.S. 12-3.1)

Yes
Agency submitted request for consultation on:
Consultation not required. Cite authority:

No

9. Rule-making Coordinator: Barry Gupton

Phone: 919-661-5880

E-Mail: barry.gupton@ncdoi.gov

Agency contact, if any: Barry Gupton

Phone: 919-661-5880

E-Mail: barry.gupton@ncdoi.gov

10. Signature of Agency Head*:



* If this function has been delegated (reassigned) pursuant to G.S. 143B-10(a), submit a copy of the delegation with this form.

Typed Name: Dan Tinggen, Chair

Title: NC Building Code Council

RULES REVIEW COMMISSION USE ONLY

Action taken:

Submitted for RRC Review:

Date returned to agency:

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: 2012 North Carolina Energy Conservation Code, Chapter 2

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

NOTE WELL: *This request when viewed on computer extends several pages. Please be sure you have reached the end of the document.*

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Replace "which" with "that" both places.

I think the sentence would look better broken down further:

"... is used to:

- (a) increase a window's insulating value;*
- (b) block or increase heat flow; and*
- (c) reduce fading."*

And please confirm that you mean for the product to do all three things.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Energy Conservation Code, Table 402.1.1

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In footnotes l and m, what are "non-low emissivity glazed fenestration products?" I understand you are adding a definition of "low emissivity fenestration product" to the Code, so is the understanding that this term is defined by not being a low emissivity product? Is this a term known to your regulated public?

In footnotes l and m, the standard for waiver is that the permit holder will determine whether there is a safety concern due to reflection of concentrated sunlight. Is this safety of the structure, or of another product? Also, concentrated sunlight onto what? The floor, another home, a wall? Does your regulated public know how to apply this?

Also in footnotes l and m, where is the use of the alternative documented? Does your regulated public know this?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

9/11/14

Adopted language for low emissivity glazing Temporary Rule – One and Two Family Dwellings and Townhouses

Add to the 2012 NCECC, in Chapter 2 the following definition:

Low Emissivity Fenestration Product. A fenestration product containing glass which has a transparent coating which acts as a thermal mirror and is used to increase a window's insulating value, block or increase heat flow, and reduce fading.

For the 2012 NCECC, Chapter 4, modify Table 402.1.1 as follows:

TABLE 402.1.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT.

CLIMATE ZONE	FENESTRATION U-FACTOR b,l	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC b,e,m	CEILING R-VALUE ^k	WOOD FRAME WALL R-VALUE ^e	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^c WALL R-VALUE
3	0.35	0.65	0.30	30	13	5/10	19	10/13 ^f	0	5/13
4	0.35	0.60	0.30	38 or 30 cont. ^j	15, 13+2.5 ^h	5/10	19	10/13	10	10/13
5	0.35	0.60	NR	38 or 30 cont. ^j	19, 13+5, or 15+3 ^{ch}	13/17	30 ^g	10/13	10	10/13

l. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

m. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum solar heat gain coefficient of 0.80. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Energy Conservation Code, Table 402.1.3

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In footnote (e), what are "non-low emissivity glazed fenestration products" and does your regulated public understand the term?

In addition, the standard for waiver is that the permit holder will determine whether there is a safety concern due to reflection of concentrated sunlight. Is this safety of the structure, or of another product? Also, concentrated sunlight onto what? The floor, another home, a wall? Does your regulated public know how to apply this?

Where is the alternative documented? Does your regulated public know this?

What is "REScheck"? I take it your regulated public is familiar with this term?

I take it "SHGC" stands for "Solar Heat Gain Coefficient" as defined in Chapter 2 of the Code?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Energy Conservation Code, 402.3.5 and 402.5

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Resubmit these Rules showing the current language in 402.3.5 and 402.5, along with the proposed changes.

Note earlier questions regarding the definition of "non-low emissivity glazed fenestration products," the waiver provision applicability, and documentation.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

For the 2012 NCECC, Chapter 4, modify Table 402.1.3 as follows:

**TABLE 402.1.3
EQUIVALENT U-FACTORS^a**

CLIMATE ZONE	FENESTRATION U-FACTOR ^e	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR ^b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR ^d	CRAWL SPACE WALL U-FACTOR ^c
3	0.35	0.65	0.035	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.030	0.061	0.082	0.033	0.059	0.065

e. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55. When applying this note, the use shall be documented to allow identification for compliance. When applying this note and using REScheck, to allow continued use of the software, the applicable fenestration product shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-value and SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these subject products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

For the 2012 NCECC, Chapter 4, add an exception to:

402.3.5 Thermally isolated conditioned sunroom U-factor and SHGC

Exception: For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55 and, when cooling is provided, a maximum SHGC of 0.80. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

402.5 Maximum fenestration U-factor and SHGC (Mandatory)

Exception: For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55 and a maximum SHGC of 0.80. When applying this note, the use shall be documented to allow identification for compliance.

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Residential Code, Chapter 2

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Replace "which" with "that" both places.

I think the sentence would look better broken down further:

"... is used to:

- (a) increase a window's insulating value;*
- (b) block or increase heat flow; and*
- (c) reduce fading."*

And please confirm that you mean for the product to do all three things.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Residential Code, Table N1102.1

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In footnotes l and m, what are "non-low emissivity glazed fenestration products?" I understand you are adding a definition of "low emissivity fenestration product" to the Code, so is the understanding that this term is defined by not being a low emissivity product? Is this a term known to your regulated public?

In footnotes l and m, the standard for waiver is that the permit holder will determine whether there is a safety concern due to reflection of concentrated sunlight. Is this safety of the structure, or of another product? Also, concentrated sunlight onto what? The floor, another home, a wall? Does your regulated public know how to apply this?

Also in footnotes l and m, where is the use of the alternative documented? Does your regulated public know this?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

Add to the 2012 NC Residential Code, in Chapter 2 the following definition:

Low Emissivity Fenestration Product. A fenestration product containing glass which has a transparent coating which acts as a thermal mirror and is used to increase a window's insulating value, block or increase heat flow, and reduce fading.

For the 2012 NC Residential Code, Chapter 11, modify Table N1102.1 as follows:

**TABLE N1102.1
INSULATION AND FENESTRATION REQUIREMENTS BY COMPONENT.**

CLIMATE ZONE	FENESTRATION U-FACTOR b ₁	SKYLIGHT ^b U-FACTOR	GLAZED FENESTRATION SHGC b,e,m	CEILING R-VALUE ^k	WOOD FRAME WALL R-VALUE ^e	MASS WALL R-VALUE ⁱ	FLOOR R-VALUE	BASEMENT ^c WALL R-VALUE	SLAB ^d R-VALUE & DEPTH	CRAWL SPACE ^c WALL R-VALUE
3	0.35	0.65	0.30	30	13	5/10	19	10/13 ^r	0	5/13
4	0.35	0.60	0.30	38 or 30 cont. ^j	15, 13+2.5 ^h	5/10	19	10/13	10	10/13
5	0.35	0.60	NR	38 or 30 cont. ^j	19, 13+5, or 15+3 ^{eh}	13/17	30 ^g	10/13	10	10/13

l. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

m. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum solar heat gain coefficient of 0.80. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Residential Code, Table N1102.1.2

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

In footnote (e), note earlier questions regarding the definition of "non-low emissivity glazed fenestration products," the waiver provision applicability, and documentation.

What is "REScheck"? I take it your regulated public is familiar with this term?

I take it "SHGC" stands for "Solar Heat Gain Coefficient" as defined in Chapter 2 of the Code?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Residential Code, N1102.3.5 and 1102.5

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Resubmit these Rules showing the current language in N1102.3.5 and 1102.5, along with the proposed changes.

Note earlier questions regarding the definition of "non-low emissivity glazed fenestration products," the waiver provision applicability, and documentation.

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

For the 2012 NC Residential Code, Chapter 11, modify Table N1102.1.2 as follows:

**TABLE N1102.1.2
EQUIVALENT U-FACTORS_a**

CLIMATE ZONE	FENESTRATION U-FACTOR _e	SKYLIGHT U-FACTOR	CEILING U-FACTOR	FRAME WALL U-FACTOR	MASS WALL U-FACTOR _b	FLOOR U-FACTOR	BASEMENT WALL U-FACTOR _d	CRAWL SPACE WALL U-FACTOR _c
3	0.35	0.65	0.035	0.082	0.141	0.047	0.059	0.136
4	0.35	0.60	0.030	0.077	0.141	0.047	0.059	0.065
5	0.35	0.60	0.030	0.061	0.082	0.033	0.059	0.065

e. For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55. When applying this note, the use shall be documented to allow identification for compliance. When applying this note and using REScheck, to allow continued use of the software, the applicable fenestration product shall be modeled as meeting the U-factor of 0.35 and the SHGC of 0.30, as applicable, but the fenestration products actual U-value and SHGC shall be noted in the comments section of the software for documentation of application of this note to the applicable products. Compliance for these subject products shall be verified compared to the allowed substituted maximum U-value requirement and maximum SHGC requirement, as applicable.

For the 2012 NC Residential Code, add an exception to:

N1102.3.5 Thermally isolated conditioned sunroom U-factor and SHGC

Exception: For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55 and, when cooling is provided, a maximum SHGC of 0.80. When applying this note, the use shall be documented to allow identification for compliance with this requirement.

N1102.5 Maximum fenestration U-factor and SHGC

Exception: For one- and two-family dwellings and townhouses, non-low emissivity glazed fenestration products may be substituted for low emissivity glazed fenestration products without energy penalty where judged by the permit holder to be a safety concern due to reflection of concentrated sunlight. The substitute fenestration products shall have a maximum U-value of 0.55 and a maximum SHGC of 0.80. When applying this note, the use shall be documented to allow identification for compliance.

TEMPORARY RULES
REQUEST FOR TECHNICAL CHANGE

AGENCY: NC Building Code Council

RULE CITATION: NC Residential Code, Commentary

DEADLINE FOR RECEIPT: Wednesday, September 17, 2014

The Rules Review Commission staff has completed its review of this rule prior to the Commission's next meeting. The Commission has not yet reviewed this rule and therefore there has not been a determination as to whether the rule will be approved. You may call this office to inquire concerning the staff recommendation.

In reviewing these rules, the staff determined that the following technical changes need to be made:

Please clarify where this commentary is being placed. Is this for the preceding changes to N1102.3.5 and 1102.5? I take it the reference to Table 303.1.3(1) is supposed to be the Residential Code, but I do not see this Table in this Code, so the purpose is unclear as submitted.

Note earlier questions regarding the definition of “non-low emissivity glazed fenestration products,” the waiver provision applicability, and documentation.

Place a comma after “Table 303.1.3(3)” on line 6.

Replace “will” with “shall” after “Substitute fenestration products...”

Move the period inside the quotation marks after “compliance certificate” and “inspection checklist.”

In the final sentence, replace “will” with “shall.” Further, you appear to be missing a word. Do you mean, “Then verification... products shall be verified...”?

Please retype the rule accordingly and resubmit it to our office at 1711 New Hope Church Road, Raleigh, North Carolina 27609.

Amanda J. Reeder
Commission Counsel
Date submitted to agency: September 15, 2014

Commentary

The value for maximum U-value identified above for the substituted glazed fenestration products is extracted from the table for the default glazed fenestration U-value properties for unlabeled glazed fenestration products identified in Table 303.1.3(1). The value for maximum SHGC identified above for the substituted glazed fenestration products was originally extracted from the table for the default glazed fenestration SHGC properties for unlabeled glazed fenestration products identified in Table 303.1.3(3) which was 0.70 maximum but was revised to 0.80 maximum based on reports of product availability in the marketplace. When applying this exception, the use shall be documented by the permit holder to allow determination of compliance by the inspector for the substituted fenestration product. Substitute fenestration products will be allowed to be modeled in the REScheck analyses as conforming to the maximum table requirements for U-value and SHGC, as applicable, to allow continued use of the REScheck program without energy penalty. When using the REScheck compliance program for the NC requirements, document the substitute glazed fenestration products via the "Project" tab page under the "Notes" section and identify the applicable glazed fenestration as assigned by the program for the substitute glazed fenestration products. Include the actual U-value and SHGC for the substitute products. This will identify the exempted fenestration products on the program's "compliance certificate". Also, this information should be documented in the "notes" cell for the particular fenestration product. This will identify the exempted fenestration product on the program's "inspection checklist". Then verification of compliance for these subject substituted glazed fenestration products will be verified compared to the requirements of the substitute glazed fenestration product maximum U-value and SHGC requirements.