


# SUBMISSION FOR PERMANENT RULE

<b>1. Rule-Making Agency: NC Building Code Council</b>	
<b>2. Rule citation &amp; name (name not required for repeal):</b> 2024 NC Building Code (231219 Item B-3)	
<b>3. Action:</b> <input type="checkbox"/> ADOPTION <input checked="" type="checkbox"/> AMENDMENT <input type="checkbox"/> REPEAL <input type="checkbox"/> READOPTION <input type="checkbox"/> REPEAL through READOPTION	
<b>4. Rule exempt from RRC review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No	<b>5. Rule automatically subject to legislative review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No
<b>6. Notice for Proposed Rule:</b> <input checked="" type="checkbox"/> Notice Required Notice of Text published on: January 16, 2024 in NC Register Link to Agency notice: <a href="https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice">https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice</a> Hearing on: March 18, 2024 Adoption by Agency on: March 19, 2024 <input type="checkbox"/> Notice not required under G.S.: Adoption by Agency on:	
<b>7. Rule establishes or increases a fee? (See G.S. 12-3.1)</b> <input type="checkbox"/> Yes Agency submitted request for consultation on: Consultation not required. Cite authority: <input checked="" type="checkbox"/> No	<b>8. Fiscal impact. Check all that apply.</b> <input type="checkbox"/> This Rule was part of a combined analysis. <input type="checkbox"/> State funds affected <input type="checkbox"/> Local funds affected <input type="checkbox"/> Substantial economic impact ( $\geq \$1,000,000$ ) <input type="checkbox"/> Approved by OSBM <input checked="" type="checkbox"/> No fiscal note required
<b>9. REASON FOR ACTION</b> <b>9A. What prompted this action? Check all that apply:</b> <input checked="" type="checkbox"/> Agency <input type="checkbox"/> Court order / cite: <input type="checkbox"/> Federal statute / cite: <input type="checkbox"/> Federal regulation / cite: <input type="checkbox"/> Legislation enacted by the General Assembly Cite Session Law: <input type="checkbox"/> Petition for rule-making <input type="checkbox"/> Other: <b>9B. Explain:</b> This amendment is proposed to protect the public by updating the code to current standards of practice.  The delayed effective date of this Rule is January 1, 2025. The Statutory authority for Rule-making is G. S. 143-136; 143-138.	
<b>10. Rulemaking Coordinator: David B. Rittlinger</b> David B. Rittlinger Phone: (919)647-0008 E-Mail: david.rittlinger@ncdoi.gov  Additional agency contact, if any: Phone: E-Mail:	<b>11. Signature of Agency Head* or Rule-making Coordinator:</b>  <hr/> *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: David B. Rittlinger Title: Chief Code Consultant
<b>RRC AND OAH USE ONLY</b>	
<b>Action taken:</b>  <input type="checkbox"/> RRC extended period of review: <input type="checkbox"/> RRC determined substantial changes: <input type="checkbox"/> Withdrawn by agency <input type="checkbox"/> Subject to Legislative Review <input type="checkbox"/> Other:	

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Documents included:

1. Formatted Review Aide and 2024 North Carolina Building Code: Chapter 1 through Appendix O\*


TEXT THAT IS ~~STRUCKTHROUGH~~ IS DELETED FROM THE 2018 EDITION TO CREATE THE 2024 EDITION.

TEXT THAT IS UNDERLINED IS NEW TEXT TO CREATE THE 2024 EDITION.

\*Of note, publishing edits to the Cover page, North Carolina Building Code Council members and committees lists, North Carolina Department of Insurance contact information, Preface, Table of Contents and Index are not included as those are publishing edits that do not contain permanent rule content. These publishing edits contain NCBCC and NCDOI contact information, instructions on how to use the code, and guidance on where to find information in the code for the public-at-large. Coordination of the correct page numbers tied to the Table of Contents and Index cannot be accurately completed until the first draft of publishing is completed for NCDOI-OSFM Engineering & Codes staff review prior to completion of publishing by the International Code Council. NCDOI-OSFM Engineering & Codes staff will be coordinating the publication of all these publishing edits with the International Code Council once the proposed 2024 North Carolina Building Codes are approved.

2. Appendix C Code Change Proposal North Carolina Building Code Council (231219 Item B-3) 2024 North Carolina Building Code (File: B-3 2024 NCBC). A link to the petition can be found here:  
<https://www.ncosfm.gov/news/events/building-code-council-special-meeting-december-19-2023>
3. 2017-2023 Approved Amendments to the 2018 North Carolina Building Code (File: 2017-2023 Approved Amendments 230314 Building Code). A link to these amendments can be found here:  
<https://www.ncosfm.gov/2017-2023-approved-amendments-230314building-code>

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<b>1. Rule-Making Agency: NC Building Code Council</b>	
<b>2. Rule citation &amp; name (name not required for repeal):</b> 2024 NC Building Code 101.2 Scope, Exception 7 & 8 (231219 Item B-4)	
<b>3. Action:</b> <input type="checkbox"/> ADOPTION <input checked="" type="checkbox"/> AMENDMENT <input type="checkbox"/> REPEAL <input type="checkbox"/> READOPTION <input type="checkbox"/> REPEAL through READOPTION	
<b>4. Rule exempt from RRC review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No	<b>5. Rule automatically subject to legislative review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No
<b>6. Notice for Proposed Rule:</b> <input checked="" type="checkbox"/> <b>Notice Required</b> Notice of Text published on: January 16, 2024 in NC Register Link to Agency notice: <a href="https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice">https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice</a> Hearing on: March 18, 2024 Adoption by Agency on: March 19, 2024 <input type="checkbox"/> <b>Notice not required under G.S.:</b> Adoption by Agency on:	
<b>7. Rule establishes or increases a fee? (See G.S. 12-3.1)</b> <input type="checkbox"/> Yes Agency submitted request for consultation on: Consultation not required. Cite authority: <input checked="" type="checkbox"/> No	<b>8. Fiscal impact. Check all that apply.</b> <input type="checkbox"/> This Rule was part of a combined analysis. <input type="checkbox"/> State funds affected <input type="checkbox"/> Local funds affected <input type="checkbox"/> Substantial economic impact ( $\geq \$1,000,000$ ) <input type="checkbox"/> Approved by OSBM <input checked="" type="checkbox"/> No fiscal note required
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<b>10. Rulemaking Coordinator: David B. Rittlinger</b> David B. Rittlinger Phone: (919)647-0008 E-Mail: david.rittlinger@ncdoi.gov  Additional agency contact, if any: Phone: E-Mail:	<b>11. Signature of Agency Head* or Rule-making Coordinator:</b>  <hr/> *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: David B. Rittlinger Title: Chief Code Consultant
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<b>Action taken:</b>  <input type="checkbox"/> RRC extended period of review: <input type="checkbox"/> RRC determined substantial changes: <input type="checkbox"/> Withdrawn by agency <input type="checkbox"/> Subject to Legislative Review <input type="checkbox"/> Other:	

# SUBMISSION FOR PERMANENT RULE

[A] **101.2 Scope.** The provisions of this code shall apply to the construction, *alteration*, relocation, enlargement, replacement, *repair*, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures. Exception: If any of the following apply, then the building or structure is exempt from the provisions of this code:


**Exception:** If any of the following apply, then the building or structure is exempt from the provisions of this code:

....

7. Farm structures exempt by N.C.G.S 143-138(b4).

8. Buildings used for temporary motion picture, television, and theater stage sets and scenery are exempt from use and occupancy classification under the *North Carolina State Building Code* by N.C.G.S 143-138(b20).

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<b>1. Rule-Making Agency: NC Building Code Council</b>	
<b>2. Rule citation &amp; name (name not required for repeal):</b> 2024 NC Building Code Sections 202, 307 and 414 (231212 Item B-3)	
<b>3. Action:</b> <input type="checkbox"/> ADOPTION <input checked="" type="checkbox"/> AMENDMENT <input type="checkbox"/> REPEAL <input type="checkbox"/> READoption <input type="checkbox"/> REPEAL through READoption	
<b>4. Rule exempt from RRC review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No	<b>5. Rule automatically subject to legislative review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No
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<b>10. Rulemaking Coordinator: David B. Rittlinger</b> David B. Rittlinger Phone: (919)647-0008 E-Mail: david.rittlinger@ncdoi.gov  Additional agency contact, if any: Phone: E-Mail:	<b>11. Signature of Agency Head* or Rule-making Coordinator:</b>  <hr/> *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: David B. Rittlinger Title: Chief Code Consultant
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# SUBMISSION FOR PERMANENT RULE

## SECTION 202 GENERAL DEFINITIONS

....

**[F] FLAMMABLE GAS.** A material that is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure [a material that has a *boiling point* of 68°F (20°C) or less at 14.7 psia (101 kPa)], ~~which also meets one of the following~~ subdivided as follows:

1. ~~Is~~ Category 1A.

1. A gas that is ignitable at 14.7 psia (101 kPa) when in a mixture of 13 percent or less by volume with air.
2. ~~Has~~ A gas with a flammable range at 14.7 psia (101 kPa) with air of at least 12 percent, regardless of the lower limit, unless data show compliance with Category 1B.

2. Category 1B.

A gas that meets the flammability criteria for Category 1 A, is not pyrophoric or chemically unstable, and meets one or more of the following:

1. A lower flammability limit of more than 6 percent by volume in air; or
2. A fundamental burning velocity of less than 3.9 in/s (10 cm/s).

The limits specified shall be determined at 14.7 psi (101 kPa) of pressure and a temperature of 68°F (20°C) in accordance with ASTM E681.

Where not otherwise specified, the term “flammable gas” includes both Category 1A and Category 1B.

....

**TABLE 307.1(1)**  
**MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD<sup>a, i</sup>**  
m, n, p

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE <sup>b</sup>			USE-CLOSED SYSTEMS <sup>b</sup>			USE-OPEN SYSTEMS <sup>b</sup>	
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
Combustible fiber <sup>d</sup>	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
	Baled <sup>o</sup>		(1,000)			(1,000)			(200)	
Combustible liquid <sup>c, i</sup>	II	H-2 or H-3	NA	120 <sup>d, e</sup>	NA	NA	120 <sup>d</sup>	NA	NA	30 <sup>d</sup>
	IIIA	H-2 or H-3		330 <sup>d, e</sup>						80 <sup>d</sup>
	IIIB	NA		13,200 <sup>e, f</sup>						3,300 <sup>f</sup>
Cryogenic flammable	NA	H-2	NA	45 <sup>d</sup>	NA	NA	45 <sup>d</sup>	NA	NA	10 <sup>d</sup>
Cryogenic inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
Cryogenic oxidizing	NA	H-3	NA	45 <sup>d</sup>	NA	NA	45 <sup>d</sup>	NA	NA	10 <sup>d</sup>
Explosives	Division 1.1	H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>

# SUBMISSION FOR PERMANENT RULE

	Division 1.2	H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	Division 1.3	H-1 or H-2	5 <sup>e, g</sup>	(5) <sup>e, g</sup>		1 <sup>g</sup>	(1) <sup>g</sup>		1 <sup>g</sup>	(1) <sup>g</sup>
	Division 1.4	H-3	50 <sup>e, g</sup>	(50) <sup>e, g</sup>		50 <sup>g</sup>	(50) <sup>g</sup>		NA	NA
	Division 1.4G	H-3	125 <sup>e, l</sup>	NA		NA	NA		NA	NA
	Division 1.5	H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>		0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	Division 1.6	H-1	1 <sup>e, g</sup>	NA		NA	NA		NA	NA
Flammable gas	Gaseous									
	<u>1A and 1B (High BV)<sup>r</sup></u>	H-2	NA	NA	1,000 <sup>d,e</sup>	NA	NA	1,000 <sup>d,e</sup>	NA	NA
	<u>1B (Low BV)<sup>r</sup></u>				162,500 <sup>d,e</sup>			162,500 <sup>d,e</sup>		
	Liquefied									
	<u>1A and 1B (High BV)<sup>r</sup></u>	H-2	NA	(150) <sup>d,e</sup>	NA	NA	(150) <sup>d,e</sup>	NA	NA	NA
	<u>1B (Low BV)<sup>r</sup></u>			(10,000) <sup>d,e</sup>			(10,000) <sup>d,e</sup>			
Flammable liquid <sup>c</sup>	IA	H-2 or H-3	NA	30 <sup>d, e</sup>	NA	NA	30 <sup>d</sup>	NA	NA	10 <sup>d</sup>
	IB and IC			120 <sup>d, e</sup>			120 <sup>d</sup>			30 <sup>d</sup>
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120 <sup>d, e, h</sup>	NA	NA	120 <sup>d, h</sup>	NA	NA	30 <sup>d, h</sup>
Flammable solid	NA	H-3	125 <sup>d, e</sup>	NA	NA	125 <sup>d</sup>	NA	NA	25 <sup>d</sup>	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
Organic peroxide	UD	H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	I	H-2	5 <sup>d, e</sup>	(5) <sup>d, e</sup>		1 <sup>d</sup>	(1) <sup>d</sup>		1 <sup>d</sup>	(1) <sup>d</sup>
	II	H-3	50 <sup>d, e</sup>	(50) <sup>d, e</sup>		50 <sup>d</sup>	(50) <sup>d</sup>		10 <sup>d</sup>	(10) <sup>d</sup>
	III	H-3	125 <sup>d, e</sup>	(125) <sup>d, e</sup>		125 <sup>d</sup>	(125) <sup>d</sup>		25 <sup>d</sup>	(25) <sup>d</sup>
	IV	NA	NL	NL		NL	NL		NL	NL
	V	NA	NL	NL		NL	NL		NL	NL

(continued)

**TABLE 307.1(1)—continued**  
**MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD<sup>a, i,</sup>**  
**m, n, p**

MATERIAL	CLASS		STORAGE <sup>b</sup>	USE-CLOSED SYSTEMS <sup>b</sup>	USE-OPEN SYSTEMS <sup>b</sup>
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# SUBMISSION FOR PERMANENT RULE

		GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Oxidizer	4	H-1	1 <sup>g</sup>	(1) <sup>e, g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>	NA	0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	3 <sup>k</sup>	H-2 or H-3	10 <sup>d, e</sup>	(10) <sup>d, e</sup>		2 <sup>d</sup>	(2) <sup>d</sup>		2 <sup>d</sup>	(2) <sup>d</sup>
	2	H-3	250 <sup>d, e</sup>	(250) <sup>d, e</sup>		250 <sup>d</sup>	(250) <sup>d</sup>		50 <sup>d</sup>	(50) <sup>d</sup>
	1	NA	4,000 <sup>e, f</sup>	(4,000) <sup>e, f</sup>		4,000 <sup>f</sup>	(4,000) <sup>f</sup>		1,000 <sup>f</sup>	(1,000) <sup>f</sup>
Oxidizing gas	Gaseous	H-3	NA	NA	1,500 <sup>d, e</sup>	NA	NA	1,500 <sup>d, e</sup>	NA	NA
	Liquefied			(150) <sup>d, e</sup>	NA		(150) <sup>d, e</sup>	NA		
Pyrophoric	NA	H-2	4 <sup>e, g</sup>	(4) <sup>e, g</sup>	50 <sup>e, g</sup>	1 <sup>g</sup>	(1) <sup>g</sup>	10 <sup>e, g</sup>	0	0
Unstable (reactive)	4	H-1	1 <sup>e, g</sup>	(1) <sup>e, g</sup>	10 <sup>e, g</sup>	0.25 <sup>g</sup>	(0.25) <sup>g</sup>	2 <sup>e, g</sup>	0.25 <sup>g</sup>	(0.25) <sup>g</sup>
	3	H-1 or H-2	5 <sup>d, e</sup>	(5) <sup>d, e</sup>	50 <sup>d, e</sup>	1 <sup>d</sup>	(1) <sup>d</sup>	10 <sup>d, e</sup>	1 <sup>d</sup>	(1) <sup>d</sup>
	2	H-3	50 <sup>d, e</sup>	(50) <sup>d, e</sup>	750 <sup>d, e</sup>	50 <sup>d</sup>	(50) <sup>d</sup>	750 <sup>d, e</sup>	10 <sup>d</sup>	(10) <sup>d</sup>
	1	NA	NL	NL	NL	NL	NL	NL	NL	NL
Water reactive	3	H-2	5 <sup>d, e</sup>	(5) <sup>d, e</sup>	NA	5 <sup>d</sup>	(5) <sup>d</sup>	NA	1 <sup>d</sup>	(1) <sup>d</sup>
	2	H-3	50 <sup>d, e</sup>	(50) <sup>d, e</sup>		50 <sup>d</sup>	(50) <sup>d</sup>		10 <sup>d</sup>	(10) <sup>d</sup>
	1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.028 m<sup>3</sup>, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NL = Not Limited; NA = Not Applicable; UD = Unclassified Detonable.

- a. For use of control areas, see Section 414.2.
- b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.
- c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.
- d. Maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied cumulatively.
- e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10 of the *International Fire Code*. Where Note d also applies, the increase for both notes shall be applied cumulatively.
- f. Quantities shall not be limited in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
- g. Allowed only in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
- h. Containing not more than the maximum allowable quantity per control area of Class IA, IB or IC flammable liquids.
- i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 605.4.2 of the *International Fire Code*.
- j. Quantities in parentheses indicate quantity units in parentheses at the head of each column.
- k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when the storage containers and the manner of storage are approved.
- l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.
- m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the *International Fire Code*.
- n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1), ~~and 414.2.5(2) and 414.2.5(3)~~.
- o. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.
- p. The following shall not be included in determining the maximum allowable quantities:
  1. Liquid or gaseous fuel in fuel tanks on vehicles.
  2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with the *International Fire Code*.
  3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.
  4. Liquid fuels in piping systems and fixed appliances regulated by the *International Mechanical Code*.
  5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1 of the *International Fire Code*. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.
- q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.
- r. “High BV” Category 1B flammable gas has a burning velocity greater than 3.9 in/s (10 cm/s). “Low BV” Category 1B flammable gas has a burning velocity of 3.9 in/s (10 cm/s) or less.



# SUBMISSION FOR PERMANENT RULE

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**[F] 307.4 High-hazard Group H-2.** Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning shall be classified as Group H-2. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA *flammable or combustible liquids* that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103.4 kPa).

*Combustible dusts* where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.

*Cryogenic fluids*, flammable.

*Category 1A Flammable gases*.

*Category 1B Flammable gases having a burning velocity greater than 3.9 inches per second (10 cm/s).*

*Organic peroxides*, Class I.

*Oxidizers*, Class 3, that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103 kPa).

*Pyrophoric liquids, solids and gases*, nondetonable.

*Unstable (reactive) materials*, Class 3, nondetonable.

*Water-reactive materials*, Class 3.

**[F] 307.5 High-hazard Group H-3.** Buildings and structures containing materials that readily support combustion or that pose a *physical hazard* shall be classified as Group H-3. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA *flammable or combustible liquids* that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103.4 kPa) or less

*Combustible fibers*, other than densely packed *baled cotton*, where manufactured, generated or used in such a manner that the concentration and conditions create a fire or *explosion* hazard based on information prepared in accordance with Section 414.1.3

Consumer *fireworks*, 1.4G (Class C, Common)

*Cryogenic fluids*, oxidizing

*Category 1B flammable gases having a burning velocity of 3.9 inches per second (10 cm/s) or less.*

*Flammable solids*

*Organic peroxides*, Class II and III

*Oxidizers*, Class 2

*Oxidizers*, Class 3, that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103 kPa) or less

*Oxidizing gases*

*Unstable (reactive) materials*, Class 2

*Water-reactive materials*, Class 2

....

**[F] 414.2.5 Hazardous material in Group M display and storage areas and in Group S storage areas.** *Hazardous materials* located in Group M and Group S occupancies shall be in accordance with Sections 414.2.5.1 through 414.2.5.3414.2.5.4.

....

**[F] 414.2.5.4 Flammable gas.** The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in/s (10 cm/s) or less stored and displayed within a single *control area* of a Group M occupancy or stored in a single *control area* of a Group S occupancy is allowed to exceed the *maximum allowable quantities per control area* as specified in Table 307.1(1) without classifying the building or use as a Group H occupancy, provided that the materials are stored and displayed in accordance with the *International Fire Code* and quantities do not exceed the amounts specified in Table 414.2.5(3).

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## **[F] TABLE 414.2.5(3)**

# SUBMISSION FOR PERMANENT RULE

## MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S OCCUPANCIES PER CONTROL AREA<sup>a</sup>

FLAMMABLE GAS CATEGORY	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA	
	<u>Sprinklered in accordance with Note b</u>	<u>Nonsprinklered</u>
Category 1B (Low BV) <sup>d</sup>		
<u>Gaseous</u>	<u>390,000 cu. ft.</u>	<u>195,000 cu. ft.</u>
<u>Liquified</u>	<u>40,000 lbs.<sup>c</sup></u>	<u>20,000 lbs.</u>

For SI: 1 pound = 0.454 kg, 1 cubic foot = 0.02832 m<sup>3</sup>, 1 square foot = 0.093 m<sup>2</sup>, 1 inch/second = 2.541 cm/s.

- a. Control areas shall be separated from each other by not less than a 1-hour *fire barrier*.
- b. The building shall be equipped throughout with an approved automatic sprinkler system with minimum sprinkler design density of Ordinary Hazard Group 2 in the area where flammable gases are stored or displayed.
- c. Where storage areas exceed 50,000 square feet in area, the maximum allowable quantities are allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts. Separation of control areas is not required. The aggregate amount shall not exceed 80,000 pounds.
- d. "Low BV" Category 1B flammable gas has a burning velocity of 3.9 in/s (10 cm/s) or less.

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**F] TABLE 414.5.1**  
**EXPLOSION CONTROL REQUIREMENTS<sup>a, h</sup>**


MATERIAL	CLASS	EXPLOSION CONTROL METHODS	
		Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems <sup>b</sup>
HAZARD CATEGORY			
Combustible dusts <sup>c</sup>	—	Not Required	Required
Cryogenic flammables	—	Not Required	Required
Explosives	Division 1.1	Required	Not Required
	Division 1.2	Required	Not Required
	Division 1.3	Not Required	Required
	Division 1.4	Not Required	Required
	Division 1.5	Required	Not Required
	Division 1.6	Required	Not Required
Flammable gas	Gaseous	Not Required	Required <sup>i</sup>
	Liquefied	Not Required	Required <sup>i</sup>
Flammable liquid	IA <sup>d</sup>	Not Required	Required
	IB <sup>e</sup>	Not Required	Required
Organic peroxides	U	Required	Not Permitted
	I	Required	Not Permitted
Oxidizer liquids and solids	4	Required	Not Permitted
Pyrophoric gas	—	Not Required	Required
Unstable (reactive)	4	Required	Not Permitted
	3 Detonable	Required	Not Permitted
	3 Nondetonable	Not Required	Required
Water-reactive liquids and solids	3	Not Required	Required

## SUBMISSION FOR PERMANENT RULE

	2 <sup>g</sup>	Not Required	Required
SPECIAL USES			
Acetylene generator rooms	—	Not Required	Required
i <sup>i</sup>	—	i	i
i <sup>i</sup>	—	i	i
Grain processing	—	Not Required	Required
Liquefied petroleum gas-distribution facilities	—	Not Required	Required
Where explosion hazards exist <sup>f</sup>	Detonation	Required	Not Permitted
	Deflagration	Not Required	Required

- a. See Section 414.1.3.
- b. See the International Fire Code.
- c. Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.8.2 of the International Fire Code. See definition of "Combustible dust" in Chapter 2.
- d. Storage or use.
- e. In open use or dispensing.
- f. Rooms containing dispensing and use of hazardous materials where an explosive environment can occur because of the characteristics or nature of the hazardous materials or as a result of the dispensing or use process.
- g. A method of explosion control shall be provided where Class 2 water-reactive materials can form potentially explosive mixtures.
- h. Explosion venting is not required for Group H-5 fabrication areas complying with Section 415.11.1 and the International Fire Code.
- i. Where explosion control is required in Section 1207 of the *International Fire Code*.
- j. Not required for Category 1B flammable gases having a burning velocity not exceeding 3.9 in/s (10 cm/s).

# SUBMISSION FOR PERMANENT RULE

<b>1. Rule-Making Agency: NC Building Code Council</b>	
<b>2. Rule citation &amp; name (name not required for repeal):</b> 2024 NC Building Code 1109.2 Toilet and bathing facilities, Exception 8 (231212 Item B-6)	
<b>3. Action:</b> <input type="checkbox"/> ADOPTION <input checked="" type="checkbox"/> AMENDMENT <input type="checkbox"/> REPEAL <input type="checkbox"/> READOPTION <input type="checkbox"/> REPEAL through READOPTION	
<b>4. Rule exempt from RRC review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No	<b>5. Rule automatically subject to legislative review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No
<b>6. Notice for Proposed Rule:</b> <input checked="" type="checkbox"/> <b>Notice Required</b> Notice of Text published on: January 16, 2024 in NC Register Link to Agency notice: <a href="https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice">https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notice</a> Hearing on: March 18, 2024 Adoption by Agency on: March 19, 2024 <input type="checkbox"/> <b>Notice not required under G.S.:</b> Adoption by Agency on:	
<b>7. Rule establishes or increases a fee? (See G.S. 12-3.1)</b> <input type="checkbox"/> Yes Agency submitted request for consultation on: Consultation not required. Cite authority: <input checked="" type="checkbox"/> No	<b>8. Fiscal impact. Check all that apply.</b> <input type="checkbox"/> This Rule was part of a combined analysis. <input type="checkbox"/> State funds affected <input type="checkbox"/> Local funds affected <input type="checkbox"/> Substantial economic impact ( $\geq \$1,000,000$ ) <input type="checkbox"/> Approved by OSBM <input checked="" type="checkbox"/> No fiscal note required
<b>9. REASON FOR ACTION</b>	
<b>9A. What prompted this action? Check all that apply:</b> <input type="checkbox"/> Agency <input type="checkbox"/> Court order / cite: <input type="checkbox"/> Federal statute / cite: <input type="checkbox"/> Federal regulation / cite: <input type="checkbox"/> Legislation enacted by the General Assembly Cite Session Law: <input checked="" type="checkbox"/> Petition for rule-making <input type="checkbox"/> Other:	
<b>9B. Explain:</b> <small>REASON: As a typical model home has an office in the garage, the business occupancy is not intended to be permanent. The residential areas are outside that business area. Allowing the use of water for the residential area is reasonable, if there is a temporary ADA accessible portable toilet placed and serviced outside the model home during the time that the sales office is operating. The business staff and the general public should know and/or be directed to the portable ADA accessible toilet. A simple sign stating, "This is not an accessible toilet" on the door and/or a directional sign outside to the portable ADA accessible toilet seems logical. If a staff member or the general public choose to use a non-ADA accessible room in the residential area of the building, then that is their choice. Providing a clean and sanitary finished area inside model homes is important to the health of the staff and general public.</small> The delayed effective date of this Rule is January 1, 2025. The Statutory authority for Rule-making is G. S. 143-136; 143-138.	
<b>10. Rulemaking Coordinator: David B. Rittlinger</b> David B. Rittlinger Phone: (919)647-0008 E-Mail: david.rittlinger@ncdoi.gov  Additional agency contact, if any: Phone: E-Mail:	<b>11. Signature of Agency Head* or Rule-making Coordinator:</b>  <hr/> *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: David B. Rittlinger Title: Chief Code Consultant
<b>RRC AND OAH USE ONLY</b>	
<b>Action taken:</b> <input type="checkbox"/> RRC extended period of review: <input type="checkbox"/> RRC determined substantial changes: <input type="checkbox"/> Withdrawn by agency <input type="checkbox"/> Subject to Legislative Review <input type="checkbox"/> Other:	

# SUBMISSION FOR PERMANENT RULE

## 1109.2 Toilet and bathing facilities.


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### Exceptions:

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8. This section is not applicable to dwellings built under the NC Residential Code that serve as model homes if one temporary ADA accessible portable toilet is provided during the time in which the garage serves as a sales office. A sign shall be provided to direct staff and the public to the ADA portable toilet. Water shall be permitted to be supplied to the entire dwelling while operating as a model home, and when fully converted to a residential dwelling when meeting the NC Residential Code for 1- and 2 family dwellings.

# SUBMISSION FOR PERMANENT RULE

<b>1. Rule-Making Agency: NC Building Code Council</b>	
<b>2. Rule citation &amp; name (name not required for repeal):</b> 2024 NC Building Code, Section 1901 and Chapter 35 (230912 Item B-3)	
<b>3. Action:</b> <input type="checkbox"/> ADOPTION <input checked="" type="checkbox"/> AMENDMENT <input type="checkbox"/> REPEAL <input type="checkbox"/> READOPTION <input type="checkbox"/> REPEAL through READOPTION	
<b>4. Rule exempt from RRC review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No	<b>5. Rule automatically subject to legislative review?</b> <input type="checkbox"/> Yes. Cite authority: <input checked="" type="checkbox"/> No
<b>6. Notice for Proposed Rule:</b> <input checked="" type="checkbox"/> <b>Notice Required</b> Notice of Text published on: November 15, 2023 in NC Register Link to Agency notice: <a href="https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notices">https://www.ncosfm.gov/codes/building-code-council-bcc/bcc-hearing-notices</a> Hearing on: March 18, 2024 Adoption by Agency on: March 19, 2024 <input type="checkbox"/> <b>Notice not required under G.S.:</b> Adoption by Agency on:	
<b>7. Rule establishes or increases a fee? (See G.S. 12-3.1)</b> <input type="checkbox"/> Yes Agency submitted request for consultation on: Consultation not required. Cite authority: <input checked="" type="checkbox"/> No	<b>8. Fiscal impact. Check all that apply.</b> <input type="checkbox"/> This Rule was part of a combined analysis. <input type="checkbox"/> State funds affected <input type="checkbox"/> Local funds affected <input type="checkbox"/> Substantial economic impact ( $\geq \$1,000,000$ ) <input type="checkbox"/> Approved by OSBM <input checked="" type="checkbox"/> No fiscal note required
<b>9. REASON FOR ACTION</b> <b>9A. What prompted this action? Check all that apply:</b> <input type="checkbox"/> Agency <input type="checkbox"/> Court order / cite: <input type="checkbox"/> Federal statute / cite: <input type="checkbox"/> Federal regulation / cite: <input type="checkbox"/> Legislation enacted by the General Assembly Cite Session Law: <input checked="" type="checkbox"/> Petition for rule-making <input type="checkbox"/> Other: <b>9B. Explain:</b> This proposal adds a new referenced standard: ACI CODE 440.11-22: Structural Concrete Buildings Reinforced Internally with Fiber Reinforced Polymer (FRP) Bars – Code Requirements. The addition of this new standard allows the design and construction of cast-in-place reinforced concrete using non-metallic reinforcement bars. The design and construction requirements contained in the standard are limited to use in structures assigned to Seismic Design Category A, B or C where fire resistance ratings are not required (Section 4.11.1). It further clarifies that GFRP bars shall not be permitted for structure elements assigned to Seismic Design Category B and C where part of seismic force-resisting systems (Section 4.4.6.5). The delayed effective date of this Rule is January 1, 2025. The Statutory authority for Rule-making is G. S. 143-136; 143-138.	
<b>10. Rulemaking Coordinator: David B. Rittlinger</b> David B. Rittlinger Phone: (919)647-0008 E-Mail: david.rittlinger@ncdoi.gov  Additional agency contact, if any: Phone: E-Mail:	<b>11. Signature of Agency Head* or Rule-making Coordinator:</b>  <hr/> *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: David B. Rittlinger Title: Chief Code Consultant
<b>RRC AND OAH USE ONLY</b>	
<b>Action taken:</b> <input type="checkbox"/> RRC extended period of review: <input type="checkbox"/> RRC determined substantial changes: <input type="checkbox"/> Withdrawn by agency <input type="checkbox"/> Subject to Legislative Review <input type="checkbox"/> Other:	

## SUBMISSION FOR PERMANENT RULE

**1901.2 Plain and reinforced concrete.** Structural concrete shall be designed and constructed in accordance with the requirements of this chapter and ACI 318 as amended in Section 1905 of this code. Except for the provisions of Section 1904 and 1907, the design and construction of slabs on grade shall not be governed in this chapter unless they transmit vertical *loads* or lateral forces from other parts of the structure to the soil.

**1901.2.1 Structural concrete with GFRP reinforcement.** Cast-in-place structural concrete internally reinforced with glass fiber reinforced polymer (GFRP) reinforcement conforming to ASTM D7957 and designed in accordance with ACI CODE 440.11 shall be permitted where fire resistance ratings are not required and only for structures assigned to Seismic Categories A, B or C.

**Exception:** Concrete internally reinforced with GFRP bars shall not be permitted for concrete elements that are part of the seismic lateral force resisting system in structures assigned to Seismic Design Categories B or C.

**Add new reference standard(s) to Chapter 35 as follows:**

**ACI**

**440.11-22 Building Code Requirements for Structural Concrete Reinforced with Glass Fiber-Reinforced Polymer (GFRP) Bars-Code and Commentary.....1901.2.1**

**ASTM**

**D7957-17 Standard Specification for Solid Round Glass Fiber Reinforced Polymer Bars for Concrete Reinforcement.....1901.2.1**