DELETE IBC SECTION 1404.3 IN ITS ENTIRETY AND REPLACE AS FOLLOWS:

NOTES FOR RAC:

1. *This proposal is based on a correlation of multiple related 2018 ICC Group A proposals (i.e., FS117-18, FS118-18, FS119-19, FS120-18, FS121-18, FS122-18, FS125-18, FS127-18, FS128-18, FS130-18, and FS131-18) which all have been approved for the 2021 IBC. Also, included are a few formating and minor technical improvements or clarifications to correlate with the later 2019 ICC Group B RB223-19 proposal as approved for the 2021 IRC (i.e., on the consent agenda for the ICC 2019 Group B public hearing) and also as separately proposed as an amendment for Pennsylvania's adoption of the 2018 IRC.This will help ensure that PA's adoption of the 2018 IBC and IRC (with amendments) will be completely consistent in regard to vapor retarder requirements.*
2. *Underlining and ~~strike-out~~ omitted for clarity.*

1404.3 Vapor retarders. Vapor retarder materials shall be classified in accordance with Table 1404.3(1). A vapor retarder shall be provided on the interior side of frame walls in accordance with Table 1404.3(2), including compliance with Table 1404.3(3) and Table 1404.3(4) where applicable. An approved design using accepted engineering practice for hygrothermal analysis shall be an alternative. The appropriate climate zone shall be selected in accordance with Chapter 3 of the *International Energy Conservation Code*.

Exceptions:

1. Basement walls.
2. Below-grade portion of any wall.
3. Construction where accumulation, condensation, or freezing of moisture will not damage the materials.
4. A vapor retarder shall not be required in Climate Zones 1, 2, and 3.

1404.3.1 Spray foam plastic insulation for moisture control with Class II and III vapor retarders. For purposes of compliance with Tables 1404.3(3) and 1403.3(4), spray foam with a maximum permeance of 1.5 perms at the installed thickness applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum shall be deemed to meet the continuous insulation moisture control requirement in accordance with one of the following conditions:

1. The spray foam R-value is equal to or greater than the specified continuous insulation R-value.
2. The combined R-value of the spray foam and continuous insulation is equal to or greater than the specified continuous insulation R-value.

TABLE 1404.3(1)
VAPOR RETARDER MATERIALS AND CLASSES

CLASS	ACCEPTABLE MATERIALS
I	Sheet polyethylene, nonperforated aluminum foil, or other approved materials with a perm rating of less than or equal to 0.1.
II	Kraft-faced fiberglass batts, vapor retarder paint, or other approved materials applied in accordance with the manufacturer's instructions for a perm rating greater than 0.1 and less than or equal to 1.0.
III	Latex paint, enamel paint, or other approved materials applied in accordance with the manufacturer's instructions for a perm rating of greater than 1.0 and less than or equal to 10.0.

TABLE 1404.3(2)
VAPOR RETARDER OPTIONS

CLIMATE ZONE	VAPOR RETARDER CLASS		
	CLASS I[a]	CLASS II[a]	CLASS III
1,2	Not Permitted	Not Permitted	Permitted
3	Not Permitted	Permitted[c]	Permitted
4 (except Marine 4)	Not Permitted	Permitted[c]	See Table 1404.3(3)
Marine 4, 5, 6, 7, 8	Permitted[b]	Permitted[c]	

a. Class I and II vapor retarders with vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B) shall be allowed on the interior side of any frame wall in all climate zones
b. Use of a Class I interior vapor retarder in frame walls with a Class I vapor retarder on the exterior side shall require an approved design.
c. Where a Class II vapor retarder is used in combination with foam plastic insulating sheathing installed as continuous insulation on the exterior side of frame walls, the continuous insulation shall comply with Table 1404.3(4) and the Class II vapor retarder shall have a vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B).

TABLE 1404.3(3)
CLASS III VAPOR RETARDER

CLIMATE ZONE	CLASS III VAPOR RETARDERS PERMITTED FOR:[a,b]
4	Vented cladding over wood structural panels. Vented cladding over fiberboard. Vented cladding over gypsum. Continuous insulation with R-value ≥2.5 over 2x4 wall. Continuous insulation with R-value ≥3.75 over 2x6 wall
5	Vented cladding over wood structural panels. Vented cladding over fiberboard. Vented cladding over gypsum. Continuous insulation with R-value ≥5 over 2x4 wall. Continuous insulation with R-value ≥7.5 over 2x6 wall
6	Vented cladding over fiberboard. Vented cladding over gypsum. Continuous insulation with R-value ≥7.5 over 2x4 wall. Continuous insulation with R-value ≥11.25 over 2x6 wall
7	Continuous insulation with R-value ≥10 over 2x4 wall. Continuous insulation with R-value ≥15 over 2x6 wall
8	Continuous insulation with R-value ≥12.5 over 2x4 wall. Continuous insulation with R-value ≥20 over 2x6 wall

a. Vented cladding shall include vinyl, polypropylene, or horizontal aluminum siding, or brick veneer with a clear airspace as specified in this code, or other approved vented claddings.
b. The requirements in this table apply only to insulation used to control moisture in order to permit the use of Class III vapor retarders. The insulation materials used to satisfy this option also contribute to but do not supersede the thermal envelope requirements of the International Energy Conservation Code.

TABLE 1404.3(4)
CONTINUOUS INSULATION WITH CLASS II VAPOR RETARDER

CLIMATE ZONE	PERMITTED CONDITIONS[a]
3	Continuous insulation with R-value ≥2
4, 5, and 6	Continuous insulation with R-value ≥3 over 2x4 wall. Continuous insulation with R-value ≥5 over 2x6 wall
7	Continuous insulation with R-value ≥5 over 2x4 wall. Continuous insulation with R-value ≥7.5 over 2x6 wall
8	Continuous insulation with R-value ≥7.5 over 2x4 wall. Continuous insulation with R-value ≥10 over 2x6 wall

a. The requirements in this table apply only to insulation used to control moisture in order to permit the use of Class II vapor retarders. The insulation materials used to satisfy this option also contribute to but do not supersede the thermal envelope requirements of the International Energy Conservation Code.