



DEPARTMENT OF  
GENERAL SERVICES

**DIVISION OF ENGINEERING AND BUILDINGS**

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## **DEB Notice 012016**

(Effective: 01/20/16)

### **High Performance Buildings Act**

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#### **I. Purpose of this Notice:**

The purpose of this notice is to update the referenced document of the Virginia Energy Conservation and Environmental Standards (VEES) to the 2012 International Green Construction Code.

#### **II. Changes to the CPSM**

Replace CPSM Sections 6.1.3 C and 6.1.3.1 with the attached and add CPSM Appendix V (attached). Delete Form DGS-30-382 *VEES Compliance Matrix* from submittal requirements.

## CPSM Changes in Accordance with VEES

Revise 6.1.3 High Performance Buildings Act – Design, Paragraph C to Read:

**C. Virginia Energy Conservation and Environmental Standards (VEES)**

Comply with the Appendix V - Virginia Energy Conservation and Environmental Standards (VEES).

Virginia Energy Conservation and Environmental Standards is a prescriptive based compliance method based on the 2012 *International Green Construction Code*, published by the International Code Council, Inc.

The 2012 *International Green Construction Code* is available to be viewed by following the links at: <http://publicecodes.cyberregs.com/icod/igcc/2012/index.htm?bu=IC-P-2012-000023&bu2=IC-P-2012-000019> (Subject to availability by the ICC).

Revise 6.1.3.1 High Performance Buildings Act – Submittal Procedure to Read:

**6.1.3.1 High Performance Buildings Act - Submittal Procedure**

Schematic Design

Determine if the project is subject to the High Performance Buildings Act (HPBA). The schematic design narrative shall indicate if the project is subject to the HPBA and, if subject, the method of compliance. (LEED, Green Globes, VEES)

If the compliance method is by LEED or Green Globes, BCOM's review for compliance with the HPBA will end with the completion of the schematic design review. Once certification is completed, obtain a certificate from the issuing agency and submit a record copy to BCOM. If the VEES method is chosen, the following applies:

Preliminary Design

Submit a narrative and completed Table 302.1 with the Basis of Design indicating intended compliance methods with Appendix V - Virginia Energy Conservation and Environmental Standards to BCOM for review. Indicate where compliance documentation can be found. The narrative will be reviewed by BCOM as part of the Preliminary Design Review.

If there are sections where compliance cannot be achieved, the Agency may request a waiver from the Director of BCOM. Request must provide details as to why compliance cannot be achieved. The request must be received and approved before working drawings are submitted for review.

Working Drawings

BCOM will use VEES and the completed Table 302.1 as part of their review to assure all required elements are included in the working drawings.

During Construction

The A/E shall document the items required by VEES. The agency is to verify the documentation.

Completion

When the requirements of VEES have been completed, submit a Compliance Verification letter to BCOM, signed and dated by the State Agency Representative, the registered Architect/Engineer of record and the contractor. If requested, plaques are available from BCOM.

# APPENDIX V - VIRGINIA ENERGY CONSERVATION AND ENVIRONMENTAL STANDARDS (VEES)

## CHAPTER 1 ADMINISTRATION

### SECTION 101 GENERAL

**101.1 Short Title.** The *Virginia Energy Conservation and Environmental Standards* may be cited as the VEES.

**101.2 Incorporation by reference.** Chapters 2-12 of the 2012 *International Green Construction Code*, published by the International Code Council, Inc., are adopted and incorporated by reference to be an enforceable part of the VEES. The term “IGCC” means the 2012 *International Green Construction Code*, published by the International Code Council, Inc.

**101.3 Code Conflicts.** Where there is a conflict between the *Virginia Uniform Statewide Building Code* and the provisions of chapters 2-12 of the IGCC as amended herein the most restrictive requirement is to apply.

**101.4 Order of Precedence.** The provisions of the VEES shall be used as follows:

1. The amendments to the IGCC supersede any provisions of chapters 2-12 of the IGCC that address the same subject matter and impose differing requirements.
2. The amendments to the IGCC supersede any provisions of the codes and standards referenced in the IGCC that address the same subject matter and impose differing requirements.
3. The provisions of chapters 2-12 of the IGCC supersede any provisions of the codes and standards referenced in the IGCC that address the same subject matter and impose differing requirements.

#### **101.5 Low energy buildings.**

**101.5.1 Low energy buildings.** The following buildings shall be exempt from the VEES:

1. Those with a peak design rate of energy usage less than 3.4 Btu/h\* $\text{ft}^2$  or 1.0 watt/ $\text{ft}^2$  of floor area for space conditioning purposes.
2. Those that do not contain conditioned space.

**101.5.2 Low energy portions of buildings.** The following portions of buildings are separated from the remainder of the building by building thermal envelope assemblies complying with Section 605 of the IGCC shall be exempt from the building thermal envelope provisions of Section 605:

1. Those with a peak design rate of energy usage less than 3.4 Btu/h\*ft<sup>2</sup> or 1.0 watt/ft<sup>2</sup> of floor area for space conditioning purposes.
2. Those that do not contain conditioned space.

## **CHAPTER 2 DEFINITIONS**

*Add the following definition to Section 202 of the IGCC to read:*

**Agency.** Any of the departments, agencies and institutions of the Commonwealth of Virginia, including state-supported institutions of higher education.

## **CHAPTER 3 REQUIREMENTS**

*Change Section 301.1.1 of the IGCC to read:*

**301.1.1 Application.** The requirements contained in this code are applicable to buildings, or portions of buildings.

*Change Section 301.2 of the IGCC to read:*

**301.2 Agency requirements.** This chapter requires that the Agency indicate in Table 302.1 whether specific provisions are mandatory for each building project. All other provisions of this code shall be mandatory as applicable.

*Change the Title of Section 302 of the IGCC to read:*

### **SECTION 302 AGENCY REQUIREMENTS**

*Change Section 302.1 of the IGCC to read:*

**302.1 Requirements determined by the Agency.** The Agency shall indicate the following information in Table 302.1 for inclusion in each building project.

1. Where boxes are provided, the Agency shall check the box to indicate “Yes” where that section is to be enforced as a mandatory requirement, “No” where that section is not to be enforced as a mandatory requirement, or the appropriate enforcement threshold requirement.

Delete Section 302.1.1 of the IGCC.

Change Table 302.1 of the IGCC to read:

**TABLE 302.1  
REQUIREMENTS DETERMINED BY THE AGENCY**

Section	Section Title or Description and Directives	Agency Requirements	
<b>CHAPTER 4. SITE DEVELOPMENT AND LAND USE</b>			
407.4.1	High-occupancy vehicle parking	<input type="checkbox"/> Yes	<input type="checkbox"/> No
407.4.2	Low-emission, hybrid and electric vehicle parking	<input type="checkbox"/> Yes	<input type="checkbox"/> No
<b>CHAPTER 5. MATERIAL RESOURCE CONSERVATION AND EFFICIENCY</b>			
503.1	Minimum percentage of waste material diverted from landfills  Note: State Agency must select one.	<input type="checkbox"/> 50%	<input type="checkbox"/> 65%
		<input type="checkbox"/> 75%	

Delete Section 303 of the IGCC in its entirety.

**CHAPTER 4  
SITE DEVELOPMENT AND LAND USE**

Delete Section 402.2 of the IGCC in its entirety.

Change Section 402.3 of the IGCC as follows:

Section 402.3 Surface water protection is applicable.

Change Section 402.5 of the IGCC as follows:

Section 402.5 Conservation area is applicable.

Delete Section 402.7 of the IGCC.

Delete Section 402.8 of the IGCC in its entirety.

Delete Section 408.3 of the IGCC in its entirety. (Virginia is located in climate zone 4A)

Change Section 409.1 of the IGCC as follows:

Section 409.1 Light pollution control is applicable.

**CHAPTER 5  
MATERIAL RESOURCE CONSERVATION AND EFFICIENCY**

*Delete exception 2 to Section 505.1 of the IGCC.*

*Change Section 505.2.2 Item 1 of the IGCC to read:*

1. Contain not less than 25 percent combined post-consumer and preconsumer recovered material.

*Change Section 505.2.5 of the IGCC to read:*

**505.2.5 Indigenous materials.** Indigenous materials or components shall be composed of resources that are recovered, harvested, extracted and manufactured within the Commonwealth of Virginia. Where only a portion of a material or product is recovered, harvested, extracted and manufactured within the Commonwealth of Virginia, only that portion shall be included.

## **CHAPTER 6 ENERGY CONSERVATION, EFFICIENCY AND CO<sub>2</sub>e EMISSION REDUCTION**

*Change Section 601.3 of the IGCC to read:*

**601.3 Application.** Buildings and their associated building sites shall comply with Section 601.3.2.

*Delete Section 601.3.1 of the IGCC.*

*Change Section 601.4 of the IGCC to read:*

**601.4 Minimum requirements.** Buildings shall be provided with metering complying with Section 603, and commissioning complying with Section 611.

*Delete Section 602 of the IGCC in its entirety.*

*Add exceptions to Section 603.1.1 of the IGCC to read:*

**Exception:**

1. Metering for each individual tenant is not required for Group R-1 and Group R-2 occupancy types.
2. Metering for each individual tenant is not required where such tenant is an Agency of the Commonwealth of Virginia.

*Delete Section 604 of the IGCC in its entirety.*

*Delete Section 605.1.2.3 of the IGCC. (Air curtain substitution is not permitted in the VECC)*

*Delete Section 605.2 of the IGCC. (Roof Replacement is addressed in the CPSM)*

*Delete Exception 6 to Section 606.5.1 of the IGCC. (Exception is not permitted in the VECC)*

*Delete Section 606.7 Item 3 of the IGCC. (Grease can collect on energy recovery systems installed in kitchen hood exhaust systems and become a fire hazard.)*

*Delete Section 606.9 of the IGCC.*

*Delete Section 607.2.2 of the IGCC.*

*Change the exception to Section 607.6.1 of the IGCC to read:*

**Exception:** For piping other than that located under building slabs, channel or sleeve is not required where the insulation manufacturer stipulates that the pipe insulation will maintain its insulating value in underground applications in damp soil where installed in accordance with the manufacturer's instructions.

*Delete Section 610.1.1 of the IGCC.*

*Delete Section 611.1.5.5 of the IGCC.*

*Delete Section 611.3.5 of the IGCC.*

*Delete Section 611.4 of the IGCC in its entirety.*

## **CHAPTER 7 WATER RESOURCE CONSERVATION, QUALITY AND EFFICIENCY**

*Delete Section 702.7 of the IGCC.*

*Change Section 702.8 of the IGCC to read:*

**702.8 Efficient hot and tempered water distribution.** Hot and tempered water distribution shall comply with the maximum pipe length limit in this section. Hot and tempered water shall be delivered to the outlets of individual showers, combination tub-showers, sinks, lavatories, dishwashers, washing machines and hot water hose bibs in accordance with Section 702.8.1. For purposes of this section, references to pipe shall include tubing. For purposes of this section, the source of hot or tempered water shall be considered to be a water heater, boiler, circulation loop piping or electrically heat-traced piping.

*Delete Section 702.8.2 of the IGCC in its entirety.*

*Change Section 703.1 of the IGCC to read:*

**703.1 Hydronic closed systems.** Closed loop hydronic heating and cooling systems, and ground-source heat pump systems connected to a potable makeup water supply shall be metered in accordance with Section 705 and shall alarm to a monitored location upon detection of a leak.

*Delete Section 703.4 of the IGCC.*

*Change Application “Makeup water for closed loop systems” of Table 705.1.1 of the IGCC to read:*

APPLICATION	REQUIREMENTS
Makeup water for closed loop systems such as chilled water and hydronic systems	Makeup water supplying systems of 50 Tons or greater of cooling capacity or 500,000 Btu/h or greater of heating capacity shall be metered.

*Replace Section 706 of the IGCC with the following:*

**706.1 Scope.** The provisions of Chapter 13 of the Virginia Plumbing Code shall govern the use of nonpotable water and the construction, installation, and design of systems utilizing nonpotable water.

*Replace Section 707 of the IGCC with the following:*

**707.1 Scope.** The provisions of Chapter 13 of the Virginia Plumbing Code shall govern the construction, installation, alteration and repair of rain water collection and conveyance systems.

*Replace Section 708 of the IGCC with the following:*

**708.1 Scope.** The provisions of Chapter 13 of the Virginia Plumbing Code shall govern the construction, installation, alteration and repair of gray water reuse systems.

*Replace Section 709 of the IGCC with the following:*

**709.1 Scope.** The provisions of Chapter 13 of the Virginia Plumbing Code shall govern the construction, installation, alteration and repair of systems supplying nonpotable reclaimed water.

## CHAPTER 8 INDOOR ENVIRONMENTAL QUALITY AND COMFORT

*Delete Section 803.2 of the IGCC.*

*Delete Section 804.2 of the IGCC.*

*Change Section 807.1 of the IGCC as follows:*

Section 807 Acoustics is applicable.

**CHAPTER 9**  
**COMMISSIONING, OPERATION AND MAINTENANCE**

*Delete Section 903.1.2 of the IGCC.*

*Change Table 903.1 of the IGCC as follows: Remove “POST-OCCUPANCY” and “OCCURRENCE – Post-occupancy” columns.*

**CHAPTER 10**  
**EXISTING BUILDINGS**

*Delete Section 1007 of the IGCC in its entirety.*