



DEPARTMENT OF
GENERAL SERVICES

BUREAU OF CAPITAL OUTLAY MANAGEMENT

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BCOM Newsletter

Issue # 11

November 2015

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Do I need a Building Permit?

BCOM's Lead Reviewers are often asked questions such as:

- Is a Building Permit required for this project?
- Can we do this project under our Annual Permit Authority?

While the Bureau's Lead Reviewers are glad to provide the answers, in most cases the answers are readily available within the [Construction & Professional Services Manual \(CPSM\)](#). Please refer to **CPSM Appendix P, Building Permit Policy for Construction of State Owned Buildings & Structures**.

Appendix P is organized by these three categories:

- Building Permit (Issued by DEB)
- Project Permit (Issued under Annual Permit Authority)
- No Permit

The CPSM describes the "character of work" applicable to that category. The Manual also describes the related requirements which must be met to comply with the Building Permit Policy.

If a situation is unclear, or just for confirmation, don't hesitate to contact the BCOM Lead Reviewer assigned to your agency for guidance.

CPSM Forms Update

The following CPSM form was recently revised:

- [DGS-30-004](#) (AE-1 thru AE-6) A/E Data Forms (Revised 11-15)

Please download Form DGS-30-000, [Capital Outlay Forms Master List](#) for a complete listing of the latest version of each CPSM form. All current forms may be downloaded from the [DGS Forms Center](#). If a prior version of a form is required, please contact capout@dgs.virginia.gov.

BCOM'S APPLICATION OF NFPA 285 WITHIN THE VIRGINIA CONSTRUCTION CODE

This article addresses how BCOM applies the requirements of NFPA 285 *Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Nonload – Bearing Wall Assemblies Containing Combustible Components* within the 2012 Edition of the *Virginia Construction Code (VCC)*.

With the advent of requirements such as the provision for a continuous air barrier by the 2012 *Virginia Energy Conservation Code*; combustible materials, such as foam plastic insulation, are being incorporated into the exterior wall assemblies within buildings required to be of non-combustible construction. Large surfaces of combustible material allow fire to spread quickly horizontally and vertically to other areas of a building. Because of this fire propagation potential, the *International Building Code (IBC)* requires wall assemblies that integrate combustible plastics and combustible water-resistive barriers be tested in accordance with NFPA 285.

NFPA 285 provides a method of determining the flammability characteristics of exterior, non-load-bearing wall assemblies/panels. The test method described is intended to evaluate the inclusion of combustible components within wall assemblies/panels of buildings that are required to be of non-combustible construction. It is intended to simulate the tested wall assemblies' fire performance.

The 2012 *Virginia Construction Code (VCC)* amended the 2012 Edition of the *International Building Code (IBC)* to provide *Exceptions* that eliminate the IBC requirements for NFPA 285 compliance where the building is internally protected throughout by an approved automatic fire sprinkler system.

BCOM does not agree that the application of a Fire Sprinkler System within the building (already required for many of the buildings) adequately mitigates the increased fire propagation potential due to the increase in combustible materials within the exterior walls of buildings that are required to be of non-combustible construction.

The 2014 *Construction and Professional Services Manual (CPSM)* Revision 1, Chapter 4 – *Code and Technical Requirements for All Buildings On State Property*, reinforces that the Division of Engineering and Buildings (DEB) develops standards which clarify the applications of Virginia Uniform Statewide Building Code (VUSBC) requirements as they pertain to buildings on state property, DEB standards as they pertain to buildings on state property, and technical requirements for all state-owned buildings and structures. The requirements in Chapter 4 prescribe standards and requirements for buildings on state property which may be higher than the minimum requirements for the private sector owner but are necessary to meet the energy, performance, maintenance, safety, and accessibility standards for public buildings.

2014 CPSM Rev 1 Section 4.1.2.11 *NFPA 285 Acceptance Criteria in Exterior Walls* reads: “Use of Exception No.3 to Section 2603.5.5 in the 2012 edition of the VCC: Contact the BCOM lead reviewer assigned to your agency for guidance.”

(continued on next page)

The following, update for CPSM Section 4.1.2.11 establishes BCOM's application of NFPA 285 within the VCC:

VCC Section 2603.5.5 Foam Plastic Insulation – Exterior Walls of Buildings of Any Height - Vertical and Lateral Fire Propagation

- BCOM will enforce IBC 2012 Section 2603.5.5 *Vertical and Lateral Fire Propagation* as written. NFPA 285 is a unique 'Assembly Test' where the replacement and/or modification of a specific component will void the Assembly *Listing*.
- IBC 2012 Section 2603 *Foam Plastic Insulation* provides multiple methodologies for attaining compliance.
- VCC 2012 Section 2603.10 *Special Approval* may be the appropriate vehicle to address the concerns cited. VCC 2012 Section 2603.10 reads 'foam plastic shall not be required to comply with the requirements of Section 2603.4 through 2603.8...'
- The IBC Code Commentary to IBC 2012 – Section 2603.10 reads 'there are 2 ways to show code compliance under Section 2603.10. One method is to provide the actual test report that contains the description of the assembly and test results showing that the foam plastic, in the end-use application, has passed the test. The second method is to obtain, from an evaluation agency such as ICC ES, an evaluation report that covers the end-use application'.
- BCOM interprets this Commentary to permit BCOM to consider an Engineering Judgment where a component substitution of a tested assembly is proposed. This application would permit similar results intended by VCC 2603.5.5 *Vertical and Lateral Fire Propagation* (see opening paragraph, 2nd sentence) while documenting that the increased potential is mitigated. This application can also be utilized to attain a similar result as proposed by VCC 2012 Section 2603.5.5 *Exception 2*.

VCC Section 1403.5 Performance Requirements - Vertical & Lateral Flame Propagation

- BCOM will enforce the requirements of IBC 2012 Section 1403.5 *Vertical & Lateral Flame Propagation* as written for this application.
- BCOM accepts a similar methodology for compliance and/or use of an Engineering Judgment for this application as described in the discussion of IBC 2012 Section 2603.5.5 *Vertical and Lateral Fire Propagation* above.

VCC Section 1407.10.4 Metal Composite Materials (MCM) – Type I, II, III and IV Construction – Full Scale Tests

- BCOM will enforce the requirements of IBC 2012 – 1407.10.4 *Full Scale Tests* as written.
- BCOM accepts a similar methodology for compliance and/or use of an Engineering Judgment for this application as described in the discussion of IBC 2012 Section 2603.5.5 *Vertical and Lateral Fire Propagation* above.
- Note that VCC 2012 Section 1407.11 *Alternate Conditions* provides methodology for the provision of MCM Panels up to 75 feet in height above grade without requiring full scale tests based on the acceptance criteria of NFPA 285.

Change Orders

There are two types of change orders — Construction and Architect/Engineer Contract Change Orders.

Construction Contract Change Orders require the use of the following forms:

- [CO-11](#) – Construction Change Order (includes Parts 1, 2 and the CO Log).
- [CO-11a](#) – Construction Change Order Justification (includes Parts 1, 2 and 3).
- [GC-1](#) – GC-1 Sheet and Continuation Sheets (as required).
- [SC-1](#) – If there is a subcontractor involved, the SC-1 Sheet and Continuation Sheets (as required).
- [SS-1](#) – If there is a sub-subcontractor involved, the SS-1 Sheet and Continuation Sheets (as required).

Architect/Engineer Contract Change Orders require the use of the following forms:

- [CO-11ae](#) – A/E Contract Change Order
- [CO-2.3](#) – A/E Fee Proposal Worksheet – This form is **not required but is highly encouraged**.

Contractors and consultants who are new to COV projects should make special note of these requirements:

1. Mark-up on subcontracted work, sub-subcontracted work, and self-performed work.

A 15% markup is allowed on all self-performed work at all levels. For example, a sub-subcontractor may include a 15% markup on their self-performed work, the subcontractor above that sub-sub may include a 15% markup on their self-performed work, and the general contractor may include a 15% markup on their self-performed work. All on the same change order.

Non-self-performed work, on the other hand, may only be marked-up once at 10%. For example, if work is performed by a sub-subcontractor, that work may only be marked-up one time at 10%. Who gets the markup is not regulated.

2. Governor's Designee Approval (if required): "Prior approval by the Governor or his designee is required for each Change Order which causes an increase in the Contract Price if the resulting cumulative sum of all Change Orders exceeds 25% of the original Contract Amount or \$50,000, whichever is greater."

- **Both criteria** (\$50,000 and 25%) **must be met** to require approval by Governor's designee.
- The change order must cause an increase in the contract price (i.e., deductive change orders do not require approval by the Governor's designee).
- A contract value of \$200,000 is the crossover point as to whether the cumulative change order dollar amount or the cumulative change order percentage triggers approval:
 - For contracts below \$200,000, cumulative changes exceeding \$50,000 trigger approval.
 - For contracts above \$200,000, cumulative changes exceeding 25% trigger approval.

The following scenarios help to illustrate these limits:

Scenario A					Scenario B				
Contract: \$199,000					Contract: \$201,000				
Change Order Number	Change Order Amount	Cumulative Change Amount	Cumulative Percent	Governor's Designee's Approval Required?	Change Order Number	Change Order Amount	Cumulative Change Amount	Cumulative Percent	Governor's Designee's Approval Required?
1	\$50,000.00	\$50,000.00	25.1256%	NO	1	\$50,000.00	\$50,000.00	24.8756%	NO
2	\$1.00	\$50,001.00	25.1261%	YES	2	\$250.00	\$50,250.00	25.0000%	NO
		\$50,001.00			3	\$1.00	\$50,251.00	25.0005%	YES