

## **M.C. Dean Electrical Code Continuing Education Syllabus (180 minutes / 3 hours)**

### **PART I**

#### **General Rules**

**(20 minutes / .33 hours)**

- Introduction--instructor and participants (background, work where, position?)
- Housekeeping rules
- Fire alarm, egress and exit points in case of emergency
- Restrooms-----you are adults
- Pagers and cell phones-----put to silent mode or off
- Purpose of class
- Provide administrative information and verification of personal information to be provided to DPOR
- Questions

### **PART II**

#### **VSUBC**

**(40 minutes / .66 hours)**

- Hand-outs -----Part 1 of the Virginia Uniform Statewide Building Code, VUSBC (2003) edition and go through the following items:
  - Effective date-----November 16, 2005
- Preface
- Introduction (Establishes minimum regulations to govern the construction and maintenance of buildings and structures)
- Arrangement (Numbering systems)
- Overview-----VSUBC is divided into 3 parts
- Table of Contents
- Chapter 1 (page 1) section 101.2, note 1 and note 2 - How we get to use the NFPA 70? (2002 edition of the National Electrical Code)
- Purpose and scope (page 2)-----Section 102.1 and 102.2
- Exemptions (page 2 and 3)-----Section 102.3
- Application for permit (page 11 and 12)-----Section 108.1
- Exemptions from application for permits (page 11 and 12)-----Section 108.2
- Chapter 2 (page 22 and 23)-----Definitions

- Chapter 3 (page 33) add Section E3501.8 - Energizing service equipment to the IRC
- Chapter 27 (page 45 and 46)-----Section 2701.1-----Scope
- Section 2701.1-----Changes to NFPA 70
- Section 2701.1.2 -----Temporary connection to dwelling units
- Next (tentative) effective date of the VUSBC should be in March of 2008 (Use of the 2005 NEC with VUSBC amendments)
- Questions

**Part III  
BREAK**

**(15 minutes / .25 hours)**

**Part IV**

**2002 and or 2005 NEC**

**(40 minutes / .67 hours)**

- Article 90.9C4 - Safety-----Hard and soft metric conversions
- Article 100 - Definitions-----System bonding jumper, dwelling unit, energized, solidly grounded
- Article 110.26 and Table 110.26-----Spaces about Electrical Equipment
- Article 200.6 A-E-----Means of Identifying Grounded Conductors
- Article 210.4 A-D-----Multi-wire Branch Circuits
- Article 210.7 A-C-----Branch Circuit Receptacle Requirements
- Article 210.8A & B-----Ground-Fault Circuit Interrupter Protection for Personnel
- Article 210.12 A & B-----Arc-Fault Circuit –Interrupter Protection
- Article 250.8-----Common Grounding Electrode
- Article 250.64-----Grounding Electrode Conductor Installation
- Article 250.68-----Accessibility of grounding conductors
- Article 250.104-----Bonding of Piping Systems and Exposed Structural Steel
- Article 250.119-----Identification of Equipment Grounding Conductors
- Article 250.140-----Frames of Ranges and Clothes Dryers
- Article 280-----Surge Arrestors
- Article 285-----Transient Voltage Surge Suppressors
- Article 300.4-----Protection Against Physical Damage
- Article 300.5 and Table 300.5-----Minimum Cover Requirements

**Part V  
BREAK**

**(15 minutes / .25 hours)**

**Part VI**  
**NEC CONTINUED**  
**(35 minutes / .58 hours)**

- Article 300.21-----Spread of Fire or Products of Combustion
- Article 300.22-----Wiring in Ducts, Plenums, and other Air-Handling Spaces
- Article 310.15, Notes and Table 310.16-----Conductor Ampacity
- Article 314.16-----Box Fill
- Article 320-----Armored Cable
- Article 330-----Metal-Clad Cable
- Article 334-----Nonmetallic-Sheathed Cable
- Article 358-----Electrical Metallic Tubing
- Article 406.8-----Receptacles in Damp or Wet Locations
- Questions

**Part VII**  
**CLOSING**  
**(15 minutes / .25 hours)**

- Questions
- Class evaluation
- Handout certificates