

Montana Electrical License # \_\_\_\_\_

Other State License # \_\_\_\_\_

Name \_\_\_\_\_

Home Address \_\_\_\_\_

Home Phone # \_\_\_\_\_ Social Security # \_\_\_\_\_

Mailing Address \_\_\_\_\_

## CONTINUING ELECTRICAL UPDATE

901 Charlo, Missoula, MT 59802

Phone: (406) 542-7340 \* Fax: (406) 543-3182

2011 Industry Related Course

Course # \_\_\_\_\_

**The first 23 questions are on the first page of your code book:  
Notice and Disclaiming of Liability Concerning the Use of NFP Documents.**

- | <u>Q#</u> | <u>Question</u>   |
|-----------|---|
| 1         | NFPA codes, standards, recommended practices, and guides, (“NFPA Documents”), of which the document contained herein is one, are developed through a consensus standards development process approved by the _____ Institute.                             |
| 2-3       | This process brings together _____ representing varied viewpoints and interests to achieve _____ on fire and other safety issues.   |
| 4-9       | While the NFPA _____ the process and establishes rules to promote _____ in the development of consensus, it does _____ independently _____, evaluate, or _____ the accuracy of any information or the soundness of any _____ contained in NFPA Documents. |
| 10-11     | The NFPA disclaims _____ for any personal injury, property or other damages of any nature whatsoever, whether special, indirect, consequential or _____, directly or indirectly resulting from the publication, use of, or reliance on NFPA Documents.    |

- 12 The NFPA also makes no guaranty or warranty as to the \_\_\_\_\_ or completeness of any information published herein.
- 13 In issuing and making NFPA Documents available, the NFPA is not undertaking to render \_\_\_\_\_ or other services for or on behalf of any person or entity.
- 14 Nor is the NFPA undertaking to perform any \_\_\_\_\_ owed by any person or entity to someone else.
- 15-17 Anyone using this document should rely on his or her own \_\_\_\_\_ judgment or, as appropriate, seek the advice of a competent \_\_\_\_\_ in determining the exercise of \_\_\_\_\_ care in any given circumstances.
- 18-19 The NFPA has no \_\_\_\_\_, nor does it undertake, to police or enforce \_\_\_\_\_ with the contents of NFPA Documents.
- 20-21 Nor does the NFPA list, certify, \_\_\_\_\_ or \_\_\_\_\_ products, designs, or installations for compliance with this document.
- 22 Any certification or other statement of compliance with the requirements of this document shall not be attributable to the NFPA and is solely the responsibility of the \_\_\_\_\_ or maker of the statement.

**The following questions will be found in the Additional Notices and Disclaimers section.  
(The second page in the very front of the code book.)**

- 23-24 Users of NFPA codes, standards, recommended practices, and guides (“NFPA Documents”) should be ware that these documents may be \_\_\_\_\_ at any time by the issuance of new editions or may be amended from time to time through the issuance of \_\_\_\_\_ Amendments.
- 25-26 An official NFPA Document at any point in time consist of the current edition of the document together with any \_\_\_\_\_ Interim Amendments and any \_\_\_\_\_ then in effect.
- 27-31 In order to determine whether a given document is the current edition and whether it has been \_\_\_\_\_ through the issuance of \_\_\_\_\_ Interim Amendments or corrected through the issuance of \_\_\_\_\_, consult appropriate NFPA publications such as the National Fire Codes \_\_\_\_\_ Service, visit the NFPA website at [www.nfpa.org](http://www.nfpa.org), or contact the \_\_\_\_\_ at the address listed below.

- 32-35 A statement, written or oral, that is not processed in accordance with \_\_\_\_\_ of the Regulations Governing Committee Projects shall not be considered the official position of NFPA or any of its \_\_\_\_\_ and shall not be \_\_\_\_\_ to be, nor be relied upon as, a \_\_\_\_\_ Interpretation.
- 36-37 The NFPA does not take any position with respect to the \_\_\_\_\_ of any patent rights referenced in, related to, or asserted in connection with a \_\_\_\_\_ Document.
- 37-41 The users of NFPA Documents bear the sole \_\_\_\_\_ for determining the \_\_\_\_\_ of any such patent rights, as well as the risk of \_\_\_\_\_ of such rights, and the NFPA disclaims liability for the infringement of any patent resulting from the use of or reliance on \_\_\_\_\_ Documents.
- 42 NFPA adheres to the policy of the American \_\_\_\_\_ Institute (ANSI) regarding the inclusion of patents in ...
- 43-44 The user's attention is called to the possibility that compliance with an \_\_\_\_\_ Document may require use of an \_\_\_\_\_ covered by patent rights.
- 45-47 NFPA takes no position as to the \_\_\_\_\_ of any such patent rights or as to whether such patent rights \_\_\_\_\_ or include essential patent claims under the ANSI \_\_\_\_\_.
- 50-51 If, in connection with the ANSI Patent Policy, a patent holder has filed a statement of willingness to grant licenses under these rights on \_\_\_\_\_ and \_\_\_\_\_ terms and conditions to applicants desiring to obtain...
- 52-54 Users of NFPA Documents should consult applicable \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ laws and regulations.
- 55 NFPA does not, by the publication of its codes, standards, recommended practices, and guides, intend to urge action that is not in compliance with applicable laws, and these documents may not be \_\_\_\_\_ as doing so.
- 56 NFPA Documents are \_\_\_\_\_.
- 57 By making these documents available for use and adoption by public authorities and private users, the NFPA does not \_\_\_\_\_ any rights in copyright of these documents.

- 58-59 Use of NFPA Documents for \_\_\_\_\_ purposes should be accomplished through adoption by \_\_\_\_\_.
- 60-61 The term “adoption by reference” means the citing of \_\_\_\_\_, \_\_\_\_\_, and publishing information only.
- 62 Any deletions, additions, and changes desired by the \_\_\_\_\_ authority should be noted separately in the adopting instrument.
- 63 In order to assist NFPA in following the uses made of its documents, \_\_\_\_\_ are requested to notify the NFPA in writing of such use.
- 64 For technical assistance and questions concerning adoption of NFPA Documents, contact \_\_\_\_\_ at the address below.
- 65-68 All questions or other communications relating to NFPA Documents ..... procedures for requesting \_\_\_\_\_ Interpretations, for proposing \_\_\_\_\_ Interim Amendments, and for proposing \_\_\_\_\_ to NFPA Documents during regular revision cycles, should be sent to NFPA headquarters, addressed to the attention of the \_\_\_\_\_, Standards Council, NFPA....

## **NFPA 70**

### ***National Electrical Code***

- 69-70 This edition of NFPA 70, *National Electrical Code*, was prepared by the National Electrical Code \_\_\_\_\_ and acted on by NFPA at its June Association \_\_\_\_\_ Meeting held June 7-10, 2010, in Las Vegas, NV.
- 71-74 It was issued by the \_\_\_\_\_ Council on \_\_\_\_\_, 2010, with an effective date of \_\_\_\_\_, 2010, and \_\_\_\_\_ all previous editions.
- 75 The National Fire Protection Association has acted as \_\_\_\_\_ of the *National Electrical Code* since 1911.
- 76-78 The original *Code* document was developed in \_\_\_\_\_ as a result of the united efforts of various \_\_\_\_\_, electrical, \_\_\_\_\_, and allied interests.

- 79-80 In accordance with the provisions of the NFPA Regulations Governing Committee Projects, a National Electrical Code Committee Report on \_\_\_\_\_ contained proposed amendments to the 2008 *National Electrical Code* was published by NFPA in \_\_\_\_\_.
- 81-82 This report recorded the actions of the various Code-Making Panels and the \_\_\_\_\_ Committee of the National \_\_\_\_\_ Code Committee on each proposal that had been made to revise the 2008 *Code*.
- 83-85 The report was \_\_\_\_\_ to all members of the National Electrical Code Committee and was made available to other \_\_\_\_\_ NFPA members and to the \_\_\_\_\_ for review and comment.
- 86-88 Following the close of the \_\_\_\_\_ period, the Code-Making Panels met, acted on each comment, and \_\_\_\_\_ their action to the \_\_\_\_\_ Committee.
- 89-92 NFPA published the National Electrical Code Committee Report on \_\_\_\_\_ in \_\_\_\_\_, which recorded the actions of the \_\_\_\_\_ Panels and the Correlating Committee on each public comment to the National Electrical Code Committee Report on \_\_\_\_\_.
- 93 The National Electrical Code Committee Report on Proposals and the National Electrical Code Committee Report on Comments were presented to the \_\_\_\_\_ Association Technical Meeting for adoption.
- 94 NFPA has an \_\_\_\_\_ Section that provides particular opportunity for NFPA members interesting in electrical safety...
- 95 This \_\_\_\_\_ edition supersedes all other previous editions, supplements, and prints dated...
- 96 This *Code* is purely \_\_\_\_\_ as far as NFPA is concerned.
- 97-98 It is made available for a wide variety of both public and private uses in the interest of \_\_\_\_\_ and \_\_\_\_\_ protection.
- 99-104 These include both use in \_\_\_\_\_ and for \_\_\_\_\_ purposes, and use in private self-regulation and \_\_\_\_\_ activities such as \_\_\_\_\_ underwriting, \_\_\_\_\_ and facilities construction and management, and product testing and \_\_\_\_\_.

**NFPA 70 National Electrical Code****Article 90 (page 22)**

- 105-106 This NFPA document is made available for use subject to important \_\_\_\_\_ and legal \_\_\_\_\_.
- 107 This 2011 edition includes the following \_\_\_\_\_ features as aids to the user.
- 108-109 Changes other than editorial are highlighted with gray \_\_\_\_\_ within sections and with \_\_\_\_\_ ruling for large blocks of changed or new text and for new tables and changed or new figures.
- 110-113 90.1 Purpose  
(A) The purpose of this *Code* is the practical \_\_\_\_\_ of \_\_\_\_\_ and \_\_\_\_\_ from \_\_\_\_\_ arising from the use of electricity.
- 114 (B) This *Code* contains \_\_\_\_\_ that are considered necessary for safety.
- 115-118 Compliance therewith and proper maintenance results in an installation that is essentially free from hazard but not necessarily \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ for good service or future \_\_\_\_\_ of electrical use.
- 119-122 Hazards often occur because of \_\_\_\_\_ of wiring systems by \_\_\_\_\_ or \_\_\_\_\_ not in \_\_\_\_\_ with this *Code*.
- 123 This occurs because initial wiring did not provide for \_\_\_\_\_ in the use of electricity.
- 124-126 An initial \_\_\_\_\_ installation and \_\_\_\_\_ provisions for system \_\_\_\_\_ provide for future increases in the use of electricity.
- 127-129 (C) This *Code* is not intended as a design \_\_\_\_\_ or an \_\_\_\_\_ manual for \_\_\_\_\_ persons.
- 130-132 (D) The requirements in this *Code* address the fundamental principles of protection for safety contained in \_\_\_\_\_ of International \_\_\_\_\_ Commission Standard \_\_\_\_\_, *Electrical Installations of Buildings*.
- 133-137 IEC 60364-1, Section 131, contains fundamental principles of protection for safety that encompass protection against \_\_\_\_\_, protection against \_\_\_\_\_, protection against \_\_\_\_\_, protection against \_\_\_\_\_ currents, and protection against \_\_\_\_\_.

- 138-142 90.2 Scope  
(A) This *Code* covers the installation of electrical \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_; signaling and \_\_\_\_\_, equipment, and raceways; and \_\_\_\_\_ fiber cables and raceways for the following:
- 143-146 (A)(1) Public and private premises, including \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, recreational vehicles, and \_\_\_\_\_ buildings.
- 147-150 (A)(2) \_\_\_\_\_, \_\_\_\_\_, parking lots, \_\_\_\_\_, and industrial \_\_\_\_\_.
- 151-153 (A)(3) Installations of \_\_\_\_\_ and \_\_\_\_\_ that connect to the supply of \_\_\_\_\_.
- 154-159 (A)(4) Installations used by the electric utility, such as \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ buildings, that are not an integral part of a generating plant, \_\_\_\_\_, or control center.
- 160-165 (B)(1) Installations in \_\_\_\_\_, \_\_\_\_\_ other than \_\_\_\_\_ buildings, railway \_\_\_\_\_ stock, \_\_\_\_\_, or \_\_\_\_\_ vehicles other than mobile homes and recreational vehicles.
- 166 Note: Although the cope of this *Code* indicates that the *Code* does not cover installations in ships, portions of this *Code* are incorporated by reference into \_\_\_\_\_, *Code of Federal Regulations*, Parts 110-113.
- 167-170 (B)(2) Installations \_\_\_\_\_ in \_\_\_\_\_ and \_\_\_\_\_ mobile surface mining machinery and its attendant \_\_\_\_\_ trailing cable.
- 171-174 (B)(3) Installations of \_\_\_\_\_ for generation, transformation, transmission, or distribution of power used exclusively for operation of \_\_\_\_\_ stock or installations used exclusively for \_\_\_\_\_ and \_\_\_\_\_ purposes.
- 175-177 (B)(4) Installations of communications equipment under the \_\_\_\_\_ control of \_\_\_\_\_ utilities located outdoors or in building spaces used \_\_\_\_\_ for such installations.

- 178-184 (B)(5) Installations under the exclusive control of an \_\_\_\_\_ where such installations
- a. Consist of \_\_\_\_\_ or service \_\_\_\_\_, and associated \_\_\_\_\_, or
  - b. Are on property owned or \_\_\_\_\_ by the electric utility for the purpose of \_\_\_\_\_, metering, generation, control, transformation, transmission, or distribution of electric energy, or
  - c. Are located in legally established \_\_\_\_\_ or rights-of-way, or
  - d. Are located by ....
- 185-190 (C) The authority having jurisdiction for enforcing this *Code* may grant \_\_\_\_\_ for the installation of conductors and equipment that are \_\_\_\_\_ under the \_\_\_\_\_ control of the electric utilities and are used to connect the electric utility supply system to the \_\_\_\_\_ of the premises served, provided such installations are \_\_\_\_\_ a building or structure, or terminate inside nearest the \_\_\_\_\_ of the service conductors.
- 191 90.3 Code Arrangement  
This *Code* is divided into the introduction and \_\_\_\_\_ chapters, as shown in Figure 90.3.
- 192 Chapters 1 through 4 apply except as \_\_\_\_\_ by Chapters 5, 6, and 7 for the particular conditions.
- 193-195 Chapter 8 covers \_\_\_\_\_ systems and is not subject to the requirements of Chapters \_\_\_\_\_ except where the requirements are specifically \_\_\_\_\_ in Chapter 8.
- 196 Chapter 9 consists of \_\_\_\_\_ that are applicable as referenced.
- 197-201 90.4 Enforcement  
This *Code* is intended to be suitable for \_\_\_\_\_ application by \_\_\_\_\_ bodies that exercise legal \_\_\_\_\_ over electrical installations, including \_\_\_\_\_ and \_\_\_\_\_ systems, and for use by insurance inspectors.
- 202-203 The authority having jurisdictions for enforcement of the *Code* has the responsibility for making \_\_\_\_\_ of the rules, for deciding on the approval of equipment and materials, and for granting the \_\_\_\_\_ contemplated in a number of the rules.

- 204-208 By special \_\_\_\_\_, the authority having jurisdiction may \_\_\_\_\_ specific requirements in this *Code* or permits \_\_\_\_\_ methods where it is assured that \_\_\_\_\_ objectives can be \_\_\_\_\_ by establishing and maintaining effective safety.
- 209-211 This *Code* may require new \_\_\_\_\_, \_\_\_\_\_, or \_\_\_\_\_ that may not yet be available at the time the *Code* is adopted.
- 212-213 In such event, the authority...materials that \_\_\_\_\_ with the most recent \_\_\_\_\_ edition of this *Code* adopted by the jurisdiction.
- 214-217 90.5 Mandatory Rules, Permissive Rules, and Explanatory Material  
(A) \_\_\_\_\_ rules of this *Code* are those that identify actions that are specifically required or \_\_\_\_\_ and are characterized by the use of the terms \_\_\_\_\_ or \_\_\_\_\_.
- 218-222 (B) \_\_\_\_\_ rules of this *Code* are those that identify actions that are \_\_\_\_\_ but not required, are normally used to describe options or \_\_\_\_\_ methods, and are characterized by the use of the terms \_\_\_\_\_ or \_\_\_\_\_.
- 223 (C) Explanatory material, such as references ... in the form of \_\_\_\_\_ notes.
- 224-225 Such notes are \_\_\_\_\_ only and are not \_\_\_\_\_ as requirements of this *Code*.
- 226 Brackets containing section references to another NFPA document are for \_\_\_\_\_ purposes only and are...
- 227 These bracketed references immediately follow the \_\_\_\_\_ text.
- 228 (D) Nonmandatory information relative to the use of the *NEC* is provided in \_\_\_\_\_.
- 229 Informative annexes are not part of the \_\_\_\_\_ requirements of the *NEC*, but are included for information purposes only.

## 230-231 90.6 Formal Interpretations

To promote uniformity of interpretation and application of the provisions of this *Code*, \_\_\_\_\_ procedures have been established and are found in the NFPA \_\_\_\_\_ Governing Committee Projects.

## 232-236 90.7 Examination of Equipment for Safety

For specific items of equipment and materials referred to in this *Code*, examinations for safety made under \_\_\_\_\_ conditions provide a basis for \_\_\_\_\_ where the record is made generally available through promulgation by organizations properly \_\_\_\_\_ and \_\_\_\_\_ for experimental testing, inspections of the run of goods at factories, and service-value determination through field \_\_\_\_\_.

236-239 It is the intent of this *Code* that factory-installed \_\_\_\_\_ wiring or the \_\_\_\_\_ of equipment need \_\_\_\_\_ be inspected at the time of installation...

## 240 90.8 Wiring Planning

(A) Plans and specifications...allow for future \_\_\_\_\_ in electric power and communications circuits.

## 241 90.9 Units of Measurement

(A) For the purpose of this *Code*, metric units of measurement are in accordance with the \_\_\_\_\_ metric system known as the International System of Units (SI).

242 (B) Conversion from inch-pound units to SI units shall be based on hard conversion except as provided in \_\_\_\_\_.

243 (C) The cases given in 90.9(C)(1) through (C)(4) shall not be required to use hard conversion and shall be permitted to use \_\_\_\_\_ conversion.

244 (C)(1) Where the actual measured size of a product is not the same as the nominal size, \_\_\_\_\_ designators shall be used rather than dimensions.

245 (C)(3) Where \_\_\_\_\_ is to express units in inch-pound units, the inclusion of SI units shall not be required.

246 (C)(4) Where a negative impact on safety would result, \_\_\_\_\_ shall be used.

247 (D) Compliance with the numbers shown in \_\_\_\_\_ the SI system or the inch-pound system shall constitute compliance with this *Code*.

