ARTICLE 100 — DEFINITIONS

(Log #2933)

1- 98 - (100): Accept in Principle

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 18 for information.
SUBMITTER: Bernard J. Mezger, American Lighting Association
RECOMMENDATION: Incorporate "luminaire" into the 2002 NEC:

(a) To incorporate the use of the inclusive wording "luminaire" throughout the Code wherever the ambiguous wording "fixture" or "lighting fixture" is used an the intent and meaning is a complete lighting unit consisting of a fixture and the lamp(s), called a "luminaire".

(b) Add the definition of "luminaire" to Article 100-1 as follows:

Luminaire. A complete lighting unit consisting of a lamp, or lamps, and a ballast (when applicable), together with the parts designed to distribute the light, to position the lamp(s), and connect the lamp(s) to the power supply.

(c) Delete the FPN from Article 410-1 (and identical definition).

SUBSTANTIATION: Clarify the true meaning and intent of the item described as a "fixture", or a "lighting fixture", by providing the proper wording for a complete lighting unit. A luminaire consists of a fixture plus lamp(s). The definition and use proposed is consistent with that published and used by IESNA and NEMA.
PANEL ACTION: Accept in Principle.
PANEL STATEMENT: The panel believes its action on Proposals 1-1 and 1-165 meet the intent of the Submitter. Refer to CMP-18 for information.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3930)

1- 99 - (100-Ambient Temperature (New)): Reject
SUBMITTER: Charles J. Palmieri, Palmieri Assoc.
RECOMMENDATION: Add new definition as follows:

Ambient Temperature. The temperature of the surrounding medium, usually used to refer to the temperature of the air in which a structure is situated or a device operates.

SUBSTANTIATION: There are 48 hits throughout the NEC referencing the term ambient temperature, without technical reference to this term. It is my understanding that terms used in more than one article may be defined in Article 100 per the Style Manual.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel believes the term "ambient temperature" is in common use throughout the electrical industry, its meaning is well understood and a definition is not needed in Article 100 for proper application of Code requirements.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #422)

1- 100 - (100-Ampacity): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise as follows:

The current in amperes that a conductor can carry continuously under the conditions of use, as specified in this Code. ~~without exceeding its temperature rating.~~

SUBSTANTIATION: Editorial. Bare conductors have no temperature rating. Where bare conductors are permitted, their ampacity is prescribed by Section 310-15(b)(3), Table 310-21, and UL listing for service cable which considers the ampacity of the bare conductor the same as the insulated conductors.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel does not necessarily agree with the submitter's substantiation. There is no evidence that the present definition is being misunderstood.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1986)

1- 101 - (100-Ampacity): Reject
SUBMITTER: John E. Conley, Stratford, CT
RECOMMENDATION: Revise "ampacity" definition as follows:

Ampacity. Allowable current-carrying capacity of electrical conductors expressed in amperes.

Ampacity (scientific): The current in amperes that a conductor can carry continuously under conditions of use without exceeding its temperature rating.

SUBSTANTIATION: This proposal was rejected for the 1999 NEC because scientific ampacities were not so designated in the text. A number of correlating proposals are offered herewith to introduce scientific ampacities where appropriate.

Sections in the NEC like 310-10 have specific warnings against exceeding the temperature ratings of insulated conductors. Overheated conductors can be dangerous. Scientific ampacities establish the continuous current limits that such conductors can handle without overheating. The proposed definition (which is actually the existing definition retitled) is very precise in addressing that concept. That very precision makes it unacceptable for establishing conductor ampacities except in closely defined circumstances. It completely ignores other important criteria used to establish conductor ampacities in a more general sense. See the FPN discussion in 310-15(b). Important ampacity tables as, for example, 310-16 through 310-20, 400-5(A), and 402-5 have ampacities derived using several factors and, therefore do not meet the specificity demanded by the scientific definition. A table like 310-21 cannot comply because the scientific ampacity is specific to insulated conductors. Table 610-14(a) gives ampacities for short-time or intermittent currents, obviously outside the scope of continuous current demanded by the scientific definition.

The proposed new, more general, definition covers all present usage of the terms ampacity and ampacities. (Note that scientific ampacities are a defined sub-group within the category). The submitter attempted to find and study all the numerous references to ampacity in the Code, and offers changes only in cases which he considered appropriate. Individual Panels may wish to study their references to determine whether further correlation would be appropriate.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "scientific ampacity" does not appear in the NEC. Also, the term is unnecessary for the proper application of the NEC. The present definiton of ampacity works very well.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #650)

1- 102 - (100-Attachment (Plug Cap) (Plug)): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise to read as follows:

A device that, by insertion in a receptacle or cord connector, establishes connection between the conductors of the attached flexible cord and the conductors connected permanently to the receptacle or cord connector.

SUBSTANTIATION: Cord connectors accept attachment plugs. A cord connector does not appear to be a receptacle (as defined) even though considered as a receptacle outlet by Section 210-50(a) under certain conditions. All cord connectors are not installed as pendants. See Article 305, Sections 422-16(b)(3), 422-32(a) for example.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed text does not enhance the definition from a practical view. The definition of receptacle from Article 100 does include cord connectors.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2104)

1- 103 - (100-Authority Having Jurisdiction): Accept

Note: The Technical Correlating Committee directs that in the FPN change "because" to "since". This is to provide consistency with the Regulations Governing Committee Projects. This action will be considered as a public comment.

SUBMITTER: Kari Barrett, Chemical Manufacturers Assn.

RECOMMENDATION: Add the following definition and FPN to Article 100:

Authority Having Jurisdiction. The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.

NOTE: The phrase "authority having jurisdiction" is used in NFPA documents in a broad manner because jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction.

SUBSTANTIATION: Sections 1-1, 1-2, and 4-1 of the NFPA Regulations Governing NFPA Committee Projects (Nov. 18, 1998) Manual of Style provides that the NFPA Rules and Regulations Covering Committee Projects shall contain a uniform definition of "authority having jurisdiction." Section 3-3.6.1 of the NFPA Regulations Governing NFPA Committee Projects states:

"3-3.6.1 Definitions. Where the following terms, commonly found in the Association Technical Committee Documents, are used or defined in the body of the text, they shall be consistent with the intent of these meanings. "Definitions" shall not be altered unless approved by the Council. Such altered definition shall be clear and unambiguous in the context in which it is used."

The NFPA Regulations go on to provide the following definition:

Authority Having Jurisdiction. The organization, office, or individual responsible for approving equipment, materials, an installation, or a procedure.

NOTE: The phrase "authority having jurisdiction" is used in NFPA documents in a broad manner because jurisdictions and approval agencies vary, as do their responsibilities. Where public safety is primary, the authority having jurisdiction may be a federal, state, local, or other regional department or individual such as a fire chief; fire marshal; chief of a fire prevention bureau, labor department, or health department; building official; electrical inspector; or others having statutory authority. For insurance purposes, an insurance inspection department, rating bureau, or other insurance company representative may be the authority having jurisdiction. In many circumstances, the property owner or his or her designated agent assumes the role of the authority having jurisdiction; at government installations, the commanding officer or departmental official may be the authority having jurisdiction."

This definition of "authority having jurisdiction" is currently in over 200 other NFPA Codes as well as being included in the NEC Handbook.

Addition of this definition would alleviate the potential concern that the NEC exclusion of this "standard" definition implies that the NEC's intended definition is somehow different than the NFPA standard definition.

PANEL ACTION: Accept.

Editorially change "NOTE" to "FPN."

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #2153)

1- 104 - (100-Automatic): Accept

SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.

RECOMMENDATION: Revise as follows:

Self-acting, operating by its own mechanism when actuated by some impersonal influence, as, for example, a change in current ~~strength,~~ pressure, temperature, or mechanical means.

SUBSTANTIATION: Delete the word "strength." The term current is well understood and used throughout the Code. See Article 100 definition for Interrupting Rating, and Overload, for example. The NEC Style Manual 3.2.4 states, "Standard terms have been established through accepted use or by definition and are to be used in preference to similar terms that do not have such recognition." The term current strength is not in common usage and this is the only usage of current strength in the code.

PANEL ACTION: Accept.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #1872)

1- 105 - (100-Bathroom): Reject

SUBMITTER: Ric Thomson, Candler Hospital, Engr Dept.

RECOMMENDATION: Define what an "area" is when used in definition of a "bathroom." How big is an "area"? Sq-footage, etc. Define "area" or redefine "bathroom."

SUBSTANTIATION: When the state fire marshal inspects our hospital, he always says something about our patient rooms in general care areas, where we have a basin, and there is a switch/receptacle combination next to it. In the patient room, there is another room which contains a tub and toilet. The fire marshall says we should have a GFI receptacle by the basin, I question this because of present definition of a "bathroom", but what is an "area" our basin is outside of the room with the tub and toilet our facility is twenty years old. To me this is a very confusing issue, one of the most confusing in the NEC.

PANEL ACTION: Reject.

PANEL STATEMENT: The proposal does not contain recommended text as required by Section 4-3.3(c) of the Regulations Governing Committee Projects.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #332)

1- 106 - (100-Bathtub and Shower Zone (New)): Reject

SUBMITTER: Richard L. Miell, Otero County, CO

RECOMMENDATION: Bathtub and Shower Zone. The area measured 3 ft (914mm) horizontally and 8 ft (2.44m) vertically from the top of the bathtub rim or shower stall threshold. This zone is all encompassing, and includes the zone directly over the tub or shower stall.

SUBSTANTIATION: Over the years we have seen additional rules for this area around and above tubs and shower stalls. This change will place the definition of this area into Article 100, where it belongs. We will now have an area defined, to which the Article 380 and Article 410 can address their requirements, rather than have the same area defined differently in each article.

PANEL ACTION: Reject.

PANEL STATEMENT: The term "Bathtub and Shower Zone" is not used in the Code. The panel does not necessariy agree with the submitter's substantiation.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #4282)

1- 107 - (100-Bonding Jumper, Main): Reject

NOTE: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 5 for comment.

SUBMITTER: Charles F. Mello, Milwaukie, OR

RECOMMENDATION: Revise text as follows:

Bonding Jumper, Main. The connection between the grounded circuit conductor and the equipment grounding conductor. ~~at the service.~~

SUBSTANTIATION: The changes to the definition of "Service" that started with the 1987 NEC have impacted how installations for feeders to separate buildings and separately derived system are completed. Under the old definition in a very broad sense, the feeder to a new building became a "service" and a separately derived system created a new "service." To overcome the restrictions placed with the present definition, new terms have been utilized when in fact what is being installed is a main bonding jumper. The bonding jumper for a second building is sized and installed the same as if it were a main bonding jumper at a service. The bonding jumper for a

separately derived system is sized and installed at the source or at the first disconnect the same as a main bonding jumper is at a service. There is no technical reason to name the conductor that connects the grounded circuit conductor to the equipment grounding conductors and possibly the grounding electrode conductor at a service any differently than the conductor that connects the grounded circuit conductor to the equipment grounding conductor and grounding electrode conductor at a separately derived system or separate building. Making this change will enhance usability and reduce confusion by redundant use of terms that in essence mean the same thing.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "Bonding Jumper, Main" is correctly separated from the term "bonding jumper" to ensure the specific identification of the connection between grounded feeder and branch grounding conductors and the grounded service conductor at the service. The panel refers this action to CMP-5.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #666)

1- 108 - (100-Branch Circuit): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of Branch Circuit to read as follows:
Branch Circuit. The circuit conductors between the final branch circuit overcurrent protection device protecting the circuit and the outlet(s).
SUBSTANTIATION: Editorial. The final overcurrent device may be a supplementary device. Supplementary type overcurrent devices may or may not be approved for branch circuit protection since there is no definition. The intent appears to apply to the required branch circuit OCD. The definiton of feeder makes this distinction.
PANEL ACTION: Reject.
PANEL STATEMENT: Supplementary overcurrent devices do not normally protect the circuit in its entirety. The emphasis in the present definition is understood to include the entire conductors of the circuit. Section 240-10 prohibits supplementary overcurrent protection as a substitute for branch circuit protection.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #651)

1- 109 - (100-Branch Circuit, General Purpose): Accept
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise:
A branch circuit that supplies ~~a number of~~ two or more receptacles or outlets for lighting and appliances.
SUBSTANTIATION: Editorial. The phrase "number of outlets" is presumed to mean more than one, although one is a number. Present wording does not cover a circuit with one outlet box containing more than one receptacle, or one outlet box containing one or more receptacles and from which a permanent connection is made, since there is still only one outlet.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #256)

1- 110 - (100-Branch Circuit, Multiwire (New)): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co.
RECOMMENDATION: Revise the definition of "Branch Circuit, Multiwire" to read as follows:
Branch Circuit, Multiwire. A branch circuit which consists of two or more phase conductors that have a potential difference between them, and a conductor that has an equal potential difference between it and each of the phase conductors of the circuit and is connected to the common/return conductor of the system.
SUBSTANTIATION: Multi-wire branch circuits are used in systems which are not intentionally grounded. Refer to Sections 250-1(1), 250-1(6), 250-21, 250-22, 250-24(d), 250-30(b) and 250-32(c) for circuits or systems which are not required or not permitted to be grounded. The present definition applies only to intentionally grounded systems and incorrectly refers to a neutral conductor. See proposed definition of "Neutral".
PANEL ACTION: Reject.
PANEL STATEMENT: The term "Multiwire Branch Circuit" is not applicable to the referenced Code sections, which refer to systems that are permitted to be ungrounded. These sections do not use the term "Multiwire Branch Circuit". The term is only applicable to the circuit as presently defined.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2151)

1- 111 - (100-Branch Circuit, Multiwire): Accept
SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.
RECOMMENDATION: Revise the definition of Branch Circuit, Multiwire as follows:
"...conductors that have a voltage ~~potential difference~~ between them,... a grounded conductor that has equal voltage ~~potential difference~~ between it...".
SUBSTANTIATION: The term "potential difference" should be avoided if possible per the NEC Style Manual.
"The term voltage is well understood and shall be used in preference to other terms such as potential." [NEC Style Manual 3.2.5.5 Voltage]. Voltage is defined in Article 100 as a "...difference of potential...".
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #663)

1- 112 - (100-Circuit Breaker, Interruptor Switch): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of Circuit Breaker to read as follows:
Circuit Breaker. A switching device capable of ~~making, carrying, and breaking~~ safely closing a circuit, conducting and interrupting, currents under normal circuit conditions, and also ~~making, carrying for a specified time, and breaking currents~~ capable of safely performing these functions under specified abnormal conditions, such as those of short circuit.
Revise definition of Interruptor Switch to read as follows:
Interruptor Switch. A switch capable of safely closing a circuit, conducting, ~~making, carrying,~~ and interrupting specified currents.
SUBSTANTIATION: Editorial. A circuit breaker may be capable of closing on carrying, and interrupting currents even though not rated to do so safely. Switching devices are not capable of literally "making" current.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel believes the proposal addresses the definition of circuit breaker in Part B of Article 100 listed under "Switching Devices". The proposal does not add clarity and proposes a requirement in the definition. The term "making" current is in common use in describing the functions of circuit breakers over 600 volts.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4313)

1- 113 - (100-Circuit Integrity Cable (New)): Reject
NOTE: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panels 15 and 16 for comment.
SUBMITTER: Edward Walton, Marlborough, CT
RECOMMENDATION: Add the following definition:
Circuit Integrity Cable. A cables ability to continue to function after exposure to specific fire conditions for a specified period of time.
SUBSTANTIATION: The term circuit integrity is used throughout Article 760 and is a requirement called out in Article 700 [700-9(d)(1)(f)]. As used, circuit integrity does not define a particular

cable but is a characteristic that could apply to any cable and therefore its definition should be consistent throughout the Code. The definition will distinguish circuit integrity cables from fire retardant or fire resistant cables that have no circuit integrity.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel is unsure that the term "circuit integrity" has a common meaning as used in both Sections 700-9(d)(1)(f) and 760-2. Refer this proposal to both CMP-15 and CMP-16.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2561)

1- 114 - (100-Circuit Integrity (CI) Cable): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 16 for comment.
SUBMITTER: Wayne D. Moore, Hughes Assoc., Inc./Rep. Rockbestos-Surprenant Cable Corp.
RECOMMENDATION: Move current definition for "Fire Alarm Circuit Integrity (CI) Cable" found in Article 760-2 and revise definition to read:
Circuitry Integrity (CI) Cable: Cable used to ensure continued operation of critical circuits during a specified time under fire conditions.
SUBSTANTIATION: The term "Circuit Integrity" is used in two sections 760-2 and 700-9(d)1.(f). It seems to make more sense to define the term in Article 100 so that the user of the code would understand the term's use in both locations.
PANEL ACTION: Reject.
PANEL STATEMENT: The two present NEC references listed in the substantiation are not the same. One section's cable type is required to be both listed and be functional for a specific time period while the other section's cable type has no such requirements.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3932)

1- 115 - (100-Commercial (New)): Reject
SUBMITTER: Charles J. Palmieri, Palmieri Assoc.
RECOMMENDATION: Add new definition as follows:
Commercial. A qualifying term referring to premises that under normal business employ a permanent or semi-permanent staff for the activity of exchanging ideas, opinions, or retailing a product or group of products or the transportation of such products or a like.
SUBSTANTIATION: There are over 45 hits in the 1999 Code referencing the term commercial. In many instances the application of specific wiring methods and various items of utilization equipment may be installed in either retail, residential, or manufacturing locations. It is imperative that the Code Making Panel clarify these occupancies to enable the authority that has jurisdiction to evaluate each installation in a consistent manner. Beyond retailing locations the term commercial may be applied to such locations as banks and schools.
PANEL ACTION: Reject.
PANEL STATEMENT: 1. Many Code references are to commercial equipment, not commercial buildings. Commercial-grade equipment is defined by the product standards, for example, compare the Standard for Motor-Operated Commercial Food Preparing Machines, UL 763, to the Standard for Motor-Operated Household Food Preparing Machines, ANSI/UL 982.
2. In reality, commercial is better defined by what it is not (residential, industrial) than by what it is.
3. This is not a common definition used to identify an occupancy.
4. The proposed text would equally apply to industrial occupancies as well as a home office.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #257)

1- 116 - (100-Common/Return Conductor (New)): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co.
RECOMMENDATION: Add the following new definition to read:
Common/Return Conductor. The conductor in a multi-wire circuit or system which is used to carry the unbalanced load of the phase conductors in that circuit or system. In a grounded circuit or system, this is the conductor which is intentionally grounded.
SUBSTANTIATION: This conductor is mistakenly referred to as the neutral conductor whether the loads on the phase conductors are balanced or not. This conductor is in a neutral state or condition only when the phase conductors of that circuit or system are balanced. In this condition, this conductor does not conduct, it is neutral. This conductor is also referred to as the grounded conductor. It is the intentionally grounded conductor in those circuits or systems which are intentionally grounded. Refer to Sections 250-1(1), 250-1(6), 250-21, 250-22, 250-24(d), 250-30(b) and 250-32(c) for circuits or systems which are not required or not permitted to be grounded. Therefore, to refer to the common/return conductor as the grounded conductor would only be correct if the circuit or system were intentionally grounded. This definition is needed to properly designate respective components of a circuit.
PANEL ACTION: Reject.
PANEL STATEMENT: The term Common/Return Conductor" is not used in the Code and therefore does not require a definition. See panel action on Proposal 1-110.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #632)

1- 117 - (100-Concealed): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co. Inc.
RECOMMENDATION: Change definition of Concealed as follows:
Concealed. ~~Rendered inaccessible by the structure or finish of the building. Wires in concealed raceways are considered concealed, even though they may become accessible by withdrawing them.~~ Not visible to public view. Covered or kept from sight.
SUBSTANTIATION: The present definition treats concealed as being inaccessible. Using Webster's Dictionary, wiring in the canopy of a lighting fixture is concealed (not visible to public view) but it is accessible by lowering the canopy. The wiring is not visible or exposed but it is accessible. What do we mean when in Section 410-8(a)(5) we say "concealed behind building walls, structural ceilings, suspended ceilings, dropped ceilings or floors?" Certainly, they are concealed but in suspended ceilings or dropped ceilings they are also accessible. There is no reason for definitions in the NEC to differ from those which can be found in Webster's dictionary. I submit that if it is concealed, you cannot see it but it may be accessible and if it's exposed you certainly can see it, unless you somehow cover it to conceal it. See my proposal to change definition of "exposed" (as applied to wiring methods).
PANEL ACTION: Reject.
PANEL STATEMENT: The panel concludes that the existing definition is more usable. Changing this definition could result in unintended consequences to other NEC articles.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #652)

1- 118 - (100-Conductor: Covered): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise to read as follows:
~~A~~ An uninsulated conductor ~~encased~~ within a ~~material~~ cable jacket or armor ~~of composition or thickness that is not recognized by this Code as insulation.~~
SUBSTANTIATION: "Encased" infers individually embedded and surrounded. This type of conductor is not indicated in Code tables (except Table 310-21) and Code users have no information relative to ampacity, dimensions, temperature ratings, raceway fill, etc. This type conductor is apparently not a listed product. This creates a problem with Sections 110-2, 110-3, 110-11, 240-3, etc.
I believe covered conductor originally applied to one dubbed "weatherproof," encased in asphaltic-impregnated material widely used in the past for aerial outdoor spans. It appears to be rarely

used today and may be unavailable. "Covered" conductors appear to more appropriately be applied to (bare) conductors contained in cables such as Type SE, NM, UF, etc.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition is too restrictive as to what is considered a "covered conductor". Conductors not considered by the NEC as insulated exist in many forms and are in common use in the industry.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1542)

1- 119 - (100-Conductor (shielded)): Reject
SUBMITTER: Thomas J. Conlan, Conlan's "The Electrician Inc."
RECOMMENDATION: Conductor us addressed to
1. Bare
2. Covered
3. Insulated
Add:
4. Shielded. A shield conductor is a conductor that contains a metal shielding around insulated conductors that limits the amount of electromotive induction caused from adjacent influences of flux.
SUBSTANTIATION: None.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposal does not contain substantiation as required by Section 4-3.3(d) of the Regulations Governing Committee Projects.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #653)

1- 120 - (100-Continuous Load): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise to read as follows:
A load, or portion of a load, other than motors, ~~where the maximum~~ for which current is expected to continue for three hours or more.
SUBSTANTIATION: The panel statement for Comment 1-174 in the 1998 ROC indicated motor loads continuing for three hours or more are not excluded from the definition and that a load is not continuous unless the maximum current continues for three hours or more. This is a correct interpretation of the literal wording and the reason for this proposal. The definition is suitable only for nonmotor loads where the maximum load is all continuous. The panel concept does not harmonize with Article 430 rules which only apply a multiplier to the largest motor supplied by a set of conductors, not each motor. Motors may be designated continuous duty which is not the same as continuous, in code context.
Consider the following examples:
No. 1. Feeder (or service) conductors supply a total multiple motor load of 356 amperes and a lighting load of 35 amperes, all load for eight hours continuous; the largest motor is rated 65 amperes FLA. Panel statement and the definition indicate the load is continuous since the maximum current continues for three hours or more. Section 215-2(a) requires conductors with a minimum ampacity of 400 amperes times 125 percent, or 500 amperes. However, Section 220-4(a) indicates only the largest motor requires the 125 percent multiplier, which requires minimum conductor ampacity of 365 amperes, plus 25 percent of 65 amperes, plus 125 percent of 35 amperes, or 425 amperes. Does the definition and Section 215-2(a) or Section 220-4(a) have precedence?
No. 2. A set of conductors supplies a total maximum load of 18 amperes for lighting operating for three hours or more and 2 amperes of other load operating for less than three hours. This combined load doesn't meet the definition of continuous load since the maximum load is not for three hours or more. The conductor ampacity can be 20 amperes. If the conductors supplied only the lighting load it meets the definition of continuous, and minimum conductor ampacity is required to be 18 times 125 percent, or 22.5 amperes. This doesn't make sense.
While there may be few reported problems with the definition, I believe this is because it is not interpreted literally, but in accordance with the proposed revision and as indicated in Section 220-4(a). General practice I have observed is to increase the volt-amperes of any portion of the load continuing for three hours or more by 25 percent to arrive at minimum ratings for conductors, panelboards, and services. Example No. D3 in Appendix D appears to follow this procedure, which is also indicated in Section 430-24.
PANEL ACTION: Reject.
PANEL STATEMENT: The present definition is correct, clear, and is to be applied literally. The Submitter appears to be confusing total circuit loading with the maximum current of a single load to which the definition is to be applied.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2529)

1- 121 - (100-Control Drawing): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 14 for information.
SUBMITTER: Nicholas Ludlam, Factory Mutual Research
RECOMMENDATION: Control Drawing.
1) A drawing or other document provided by the manufacturer of the intrinsically safe or associated apparatus that details the allowed interconnections between the intrinsically safe and associated apparatus, or
2) Control Drawing. A drawing or other document provided by the manufacturer of the nonincendive field wiring apparatus or associated nonincendive field wiring apparatus that details the allowed interconnections between the nonincendive field wiring apparatus and associated nonincendive field wiring apparatus.
SUBSTANTIATION: To allow the user to interconnect nonincendive field wiring apparatus, and associated nonincendive filed wiring apparatus a Control Drawing will be necessary. The definition already exists in 504-2, but this was written specifically for intrinsically safe apparatus.
PANEL ACTION: Reject.
PANEL STATEMENT: The term is used only in Article 504 where it is presently defined and does not warrant definition in Article 100. Forward to CMP-14 for action on the proposed new definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2919)

1- 122 - (100-Coordintion (Selective) (New)): Accept
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 10 for comment.
SUBMITTER: Joseph A. Tedesco, Boston, MA
RECOMMENDATION: Add the following definition:
Coordination (Selective). Proper localization of a fault condition to restrict outages to the equipment affected, accomplished by the choice of selective fault-protective devices.
SUBSTANTIATION: Coordination, Selective Coordination and Coordinated are found in 240-12, 230-95, 620-62, 685-2, and 700-25. This definition should replace the one found in 240-12 because the word (phrase) is used in at least five places in the Code.
PANEL ACTION: Accept.
PANEL STATEMENT: The panel refers this to CMP-10.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 11
NEGATIVE: 1
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
MINICK: All references in the substantiation, including the several referenced Fine Print Notes, all refer to coordinated overcurrent protection as addressed in Section 240-12, Electrical System Coordination. As Section 240-12 provides the conditions on which a system of coordination shall be based, the logical conclusion is that Section 240-12 is presently the best suited NEC location for the definition of coordination as this definition relates to the orderly shutdown of electrical systems and should remain as a technical definition under the purview of Code-Making Panel 10.

(Log #654)

1- 123 - (100-Cord Connector (Body) (Separable Connector) (New)): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Add a definition for Cord Connector (Body) (Separable Connector) to read as follows:
Cord Connector (Body) (Separable Connector) A female contact device intended to be wired on the load end of a flexible cord for use as an extension from an outlet to provide a detachable electrical connection to an attachment plug or male flanged inlet.
SUBSTANTIATION: Cord connectors, separable connectors, are indicated in more than one article, e.g., Sections 200-10(b); 210-7; 210-50(a), 250-124(a); 410-29; 410-30(b)(c)(3); 410-56(g)(i); 410-58; 422-16(a)(3); 422-32; 511-6(c); 511-9(c); 513-5(d); 513-12(b); 520-53(k); 525-13(d); 525-15(d); 530-22; 551-46(a)(1), etc. Cord connector, connector, and separable connector as used in this code appear to refer to a common similar type female temporary connection device, although the different designations may infer otherwise. For Code purposes a definition would be useful as it is for receptacles and attachment plus, even though it is generally understood what those devices are.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel concludes this definition is more appropriate for the product standards. This substantiation does not identify any problem of misinterpretation in the NEC.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #320)

1- 124 - (100-Damp Location): Accept in Principle
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panels 6 and 18 for comment.
SUBMITTER: James F. Pierce, Intertek Testing Services NA Inc.
RECOMMENDATION: Delete and add as follows:
Location:
Damp Location: (Remove existing wording and replace with):
Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture.
SUBSTANTIATION: A simplified definition is needed that doesn't rely on a list of examples. Architectural designs vary significantly; therefore, designation of a specific area as a damp location is best left to the authority having jurisdiction who would base the decision of the definition and not a list of examples.
PANEL ACTION: Accept in Principle.
Revise the proposed definition to read as follows:
Damp Location: (Remove existing wording and replace with):
Locations protected from weather and not subject to saturation with water or other liquids but subject to moderate degrees of moisture. Examples of such locations include partially protected locations under canopies, marquees, roofed open porches, and like locations, and interior locations subject to moderate degrees of moisture, such as some basements, some barns, and some cold-storage warehouses.
PANEL STATEMENT: The panel concludes that the list of examples is useful. The list is beneficial to installers and inspectors in complying with the code rules. The panel refers this action to CMP-6 and CMP-18.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 11
NEGATIVE: 1
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
MINICK: The revised definition of "damp location" uses the exact same words (weather, saturation, other liquids) as the definition of "wet location", but in an opposite way. Therefore, the definition of "damp location" is an inverse definition to the term "wet location" and is redundant. The term "moderate", while not identified by the NEC Style Manual as a vague word, is in fact a vague term that could hold different degrees of meaning depending on the individual defining the term. By the new wording (weather), it could be construed that this definition would only apply to outdoor locations. This revision does not add clarity to the present definition.

(Log #1041)

1- 125 - (100-Dedicated Circuit (New)): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co. Inc.
RECOMMENDATION: Add a new definition to read:
Dedicated Circuit. A circuit with an overcurrent device and a return conductor which are designated for exclusive use of that circuit.
SUBSTANTIATION: To be dedicated all parts of the circuit must be dedicated or exclusive to that circuit. If the return conductor if shared by another circuit it also means the phase conductor is shared any time both circuits are energized. If the return conductor were to become open the "dedicated" circuit would be completely dependent on circumstances affecting the other circuit. A dedicated circuit should not be a part of a multiwire circuit. See my proposal for new definition of "Separate Circuit."
PANEL ACTION: Reject.
PANEL STATEMENT: The term "dedicated circuit" is not used in the Code and therefore does not warrant a definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #655)

1- 126 - (100-Disconnecting Means): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise Disconnecting Means (Disconnect) A device or group of devices consisting of a switch(es), circuit breaker(s) or other switching devices or other means permitted in this Code (by which) (whereby) the device load side ungrounded conductor(s), and where permitted or required, the grounded conductor(s) ~~of a circuit~~ can be disconnected from the device supply side conductors. ~~their source of supply~~.
SUBSTANTIATION: Editorial. the present unmodified "other means" is so broad it includes terminals, splicing devices, etc. Many sections referring to disconnecting means contain specifics, such as switch, circuit breaker, horsepower, simultaneous operation, locking provisions, etc. which in effect determine the type disconnecting means. Some sections permit or require grounded conductor. SWITCHING (disconnection) under specified conditions. A device which disconnects only ungrounded conductors of a circuit that contains a grounded conductor does not literally comply with the definition since the grounded conductor is a circuit conductor connected to the source of supply. This is not a conflict where the sections specify disconnection of ungrounded conductors, but sections which do not specify that, suggest the grounded conductors per definition, are also to be disconnected. Numerous sections specify disconnecting means without a reference to type, horsepower, simultaneous opening, etc., whereby a terminal connection or splicing device would literally comply with "other means" of the definition. Code users should not have to infer intent. Limiting "other means" to those permitted in the Code would clarify the term.
A disconnect does not literally comply with the definition if it disconnects only load side conductors and supply side conductors are not disconnected from the source of supply.
Where two switches (disconnecting means) supply one set of fuses as covered in the exception for Section 490-27(b)(7), opening one switch only disconnects the load side conductors from the supply side conductors to that switch and not necessarily from the source of power provided by the other switch.
Sections where other than switches or circuit breakers are permitted:
230-75
305-4(e)
422-31
422-32
424-20
426-51
430-109(f)
440-13
440-63
668-13(b)
669-8(b)
690-13 FPN
Sections with no specifics:
240-40
422-33(a)(b)
424-19(a)(c)(1)(2)
424-65
426-50

430-74(a)
445-10
660-5
680-12
PANEL ACTION: Reject.
PANEL STATEMENT: The requirements for disconnecting means are specified in the relevant Code sections and the proposed definition does not add clarity or facilitate its application.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1779)

1- 127 - (100-Dust-ignitionproof): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 14 for information.
SUBMITTER: Noel Williams, Noel Williams Consulting
RECOMMENDATION: Relocate the definition of Dust-ignitionproof and the related FPN from Section 502-1 to Article 100, and delete the text that applies the definition only to Article 502.
SUBSTANTIATION: The term "Dust-ignitionproof " is used in both Articles 500 and 502. For the purposes of Article 500 the term is undefined because the definition in Article 502 applies only to Article 502. In addition, according to Section 500-4(b) FPN, "Dust-ignitionproof equipment is defined in Article 100. PANEL ACTION: Reject.
PANEL STATEMENT: This term currently exists only in the 500 series Classified Location NEC Articles and more specifically in Articles 500 and 502. The panel refers this proposal to Code-Making panel 14. The panel noted in Section 500-4(b), FPN there was a possible erratum in referencing the definition to Article 100.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2415)

1- 128 - (100-Dustproof): Accept
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 19 for consideration in Article 547.
SUBMITTER: William E. Bickner, Stillwater, MN
RECOMMENDATION: Delete the definition of the term "Dustproof."
SUBSTANTIATION: The term "dustproof" could be found in only one other place in the Code - Section 547-5(a), which improperly requires enclosures to be "dustproof." This term is not used in the UL electrical equipment directory in reference to enclosures or boxes, nor in the NEMA enclosure type designations. Submitter has submitted a proposal for Article 547 that will, if accepted, obviate the need for this term.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias
COMMENT ON AFFIRMATIVE:
COX: Recommend adding a statement in the Panel Action that refers the action on this proposal to CMP-19 for information.

(Log #2414)

1- 129 - (100-Dusttight): Reject
SUBMITTER: William E. Bickner, Stillwater, MN
RECOMMENDATION: Revise the definition of the term "Dusttight" as shown below:
"Dusttight. Constructed so that dust will not enter the enclosing case under specified test conditions and listed for Class II locations."
SUBSTANTIATION: The present definition states that dusttight enclosures are "constructed so that dust will not enter the enclosing case under specified test conditions" (emphasis added). This requires evaluation according to a published standard, strongly implying listing by a recoginzed testing laboratory. If that is the intent, it should be clearly stated. The specifier, installer, or AHJ can not practically determine whether the testing requirement has been met without listing.
PANEL ACTION: Reject.
PANEL STATEMENT: Class II is not the only application for dust-tight enclosures. In fact dust-tight is NEMA Type 13 not NEMA Type 9. Furthermore, prevention of the entrance of dust is only part of the Class II enclosure rating process. Also, the proposed definition contains a requirement which is prohibited by Section 2.2.2 of the NEC Style Manual.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1543)

1- 130 - (100-Dwelling): Accept
Note: The Technical Correlating Committee directs that the panel reconsider their action based on the fact that the Style Manual directs that definitions be listed in alphabetical order. This action will be considered by the Panel as a Public Comment.
SUBMITTER: Thomas J. Conlan, Conlan's "The Electrician Inc."
RECOMMENDATION: Revise as follows:
Dwelling
Dwelling Unit.....defined
One-Family Dwelling.....defined
Two-Family Dwelling.....defined
Multifamily Dwelling.....defined
SUBSTANTIATION: Rearrange to the proper order of precedence.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #5)

1- 131 - (100-Electric-Discharge Lighting): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 18 for information.
NOTE: The following proposal consists of Comment 1-176 on Proposal 1-75 in the 1998 Annual Meeting National Electrical Code Committee Report on Proposals. This comment was held for further study during the processing of the 1999 NATIONAL ELECTRICAL CODE. The recommendation in Proposal 1-75 was:
Add a new definition as follows:
Electric-Discharge Lighting: Systems of illumination utilizing fluorescent lamps, high intensity discharge (HID) lamps, or neon tubing.
SUBMITTER: Thomas E. Trainor, City of San Diego, CA
RECOMMENDATION: Proposal No. 1-75 was referred to CMP 18 for comment by the Technical Correlating Committee at the request of CMP 1.
SUBSTANTIATION: The Chairman of CMP 18 established a Task Group to represent the Panel in reviewing this proposal. The Task Group consisted of Stephen Kieffer, Jim Pierce and Tim Wall, with myself as Chair.
The Task Group recommends that the proposal to add the defintion of Electric-Discharge Lighting to Article 100 be accepted.
The recommendation of the Task Group is based on the following:
1) "Electric-Discharge Lighting" is a technical term used in more than one Article of the NEC. (Specifically Articles 100, 210, 225, 300, 310, 380, 400, 410, 450, 530, and 600.)
2) The proposed defintion is consistent with the way the term is used in all of these articles.
3) Locating the definition of "Electric-Discharge Lighting" in Article 100 will help to clarify related terminology such as "Electric-Discharge Lighting Fixture", "Electric-Discharge Lighting System", "Electric-Discharge Lighting Equipment" and "Electric-Discharge Lamp" which are all used in other Articles of the NEC.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel does not believe that a definition for electric-discharge lighting is necessary in Article 100. Also, see action on proposal 1-132. By action of reject on this Proposal, the panel also rejects Proposal 1-75 of the 1999 NEC and the associated Comment 1-176 of the 1999 NEC. Refer this to CMP-18.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:

AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #349)

1- 132 - (100-Electric-discharge Lighting): Accept

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 18 for information.

SUBMITTER: John D. Minick, Grand Prairie, TX

RECOMMENDATION: Reject NFPA 70 - A98 ROP Proposal 1-75 (Log #3718) and uphold the original CMP 1 action of "reject", and reject NFPA 70 A98 ROC Comment 1-176 (Log #309) which was held for the 2002 NEC revision cycle.

SUBSTANTIATION: TCC Chairman Harold Ware appointed John Minick, NEC CMP 1 Chairman, to chair a Task Group of NEC CMP1 and 18 members, plus any other persons as needed to recommend specific actions relating to NFPA 70 - A98 ROP Proposal 1-75 and NFPA 70 - A98 ROC Comment 1-176 concerning a proposed definition of "Electric-Discharge Lighting" that was submitted for the 1999 NEC. CMP 1 members John Troglia and Brooke Stauffer along with CMP 18 members Ken Kempel and Bernard Mezger were appointed by Task Group Chairman Minick to form the Task Group. Also, the NEMA Lighting Fixtures Section and the NEMA Lamp Section were consulted for suggestions and recommendations on this subject matter. Basically, the members of the Task Group unanimously recommend that no definition for Electrical-Discharge Lighting be included in NEC Article 100 for the reasons as stated below.

The inclusion of a definition for the term "electrical discharge lighting", outside that already included in National Electrical Code Article 600, would seem to be a controversial solution looking for a problem. To date, and also within Proposal 1-75 for revision of the 1999 National Electrical Code, no real problem has ever been identified that would demand such a singular or unique definition in National Electrical Code Article 100. On the other hand, there are indications that would support the exclusion of a singular definition of electrical discharge lighting in Article 100. By CMP 1's panel statement on Proposal 1-75, "the definition submitted appears to serve systems serving electric signs and outline lighting" and also states that "there is no substantiation that the proposed definition would be acceptable for lighting fixtures covered in Article 410". It was pointed out by one Task Group member that there is no National Electrical Code generic definition of "lamps" or "lighting" or "illumination" as these terms would apply to a lighting product with only general references being defined as a part of their relationship to either application or installation of lighting. Examples of such definitions are "lighting outlet" and "outline lighting". The fact that a single definition of electric discharge lighting may not always fit all lighting categories in all applications was questioned by several of the Task Group members. As an example, is "neon lighting" a true lighting source as compared to true HID type lighting, or is it merely a decorative amenity that does in fact produce light? Another Task Group member raised the question of including "cold cathode" lighting if "neon" type lighting was included. In essence, such a singular definition of electric discharge lighting may indeed raise more questions that it may solve as such a definition may not always fit all situations in all occasions.

PANEL ACTION: Accept.

PANEL STATEMENT: Refer this to CMP-18 for information.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2482)

1- 133 - (100-Electrical Inspector (New)): Reject

SUBMITTER: Ronald M. DeGesero, Bldg Dept., City of Coral Springs, FL

RECOMMENDATION: The National Electrical Code needs to have a definition of an electrical inspector. What do the inspectors do?

SUBSTANTIATION: We act as inspectors, architects, engineers, designers; yet when we do our job we are hampered by political or personal interference by well meaning contractors, individual homeowners or anyone wishing to build, change, or add to existing structures.

PANEL ACTION: Reject.

PANEL STATEMENT: The proposal does not contain recommended text as required by Section 4-3.3(c) of the Regulations Governing Committee Projects.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #656)

1- 134 - (100-Enclosed): Reject

SUBMITTER: Dan Leaf, Palmdale, CA

RECOMMENDATION: Revise definition of Enclosed to read as follows:

Surrounded by a case, housing, fence, or walls that prevent persons from accidentally contacting energized parts, or contained in a raceway, cable jacket or armor, or other equipment approved for enclosing conductors.

SUBSTANTIATION: Many code sections use phrases such as "enclosed in a raceway", "enclosed within the same raceway", "enclosed in a metallic sheath", and similar phrases. Many code users may conclude that "case" and "housing" do not include raceways or cable armor since the definition of enclosure relates case or housing to apparatus.

PANEL ACTION: Reject.

PANEL STATEMENT: The proposal does not add clarity to the definition and contains a variation of the word being defined.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #657)

1- 135 - (100-Enclosure): Reject

SUBMITTER: Dan Leaf, Palmdale, CA

RECOMMENDATION: Revise definition of enclosure to read as follows:

The case or housing of apparatus, raceways, cable jacket or armor, or other equipment approved for enclosing conductors, or the fence or walls... (remainder unchanged)

SUBSTANTIATION: Editorial. Many code sections equate raceways, cable armor conduit bodies, boxes, etc. with enclosures, while other sections indicate they are not enclosures. The proposal would include auxiliary gutters, conduit bodies, boxes, cablebus framework, etc., which are not cases or housing for apparatus.

PANEL ACTION: Reject.

PANEL STATEMENT: The proposal does not add clarity to the definition and contains a variation of the word being defined.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2154)

1- 136 - (100-Energized): Accept

SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.

RECOMMENDATION: Revise the definition of Energized as follows:

Electrically connected to a source of voltage ~~potential difference~~.

SUBSTANTIATION: The term "potential difference" should be avoided if possible per the NEC Style Manual.

"The term voltage is well understood and shall be used in preference to other terms such as potential," [NEC Style Manual 3.2.5.5 Voltage]. Voltage is defined in Article 100 as a "...difference of potential...".

PANEL ACTION: Accept.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #389)

1- 137 - (100-Entry Foyer (New)): Reject

SUBMITTER: Mitchell R. Iles, City of Rogers Insp. Division, AR

RECOMMENDATION: Add a definition for entry-foyer.

SUBSTANTIATION: In my opinion an entry should include the same requirements as any other room or make a size for that requirement.

PANEL ACTION: Reject.

PANEL STATEMENT: The proposal does not contain recommended text as required by Section 4-3.3(c) of the

Regulations Governing Committee Projects. In addition, the term is not used in the NEC.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #631)

1- 138 - (100-Exposed (as Applied to Wiring Methods)): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co. Inc.
RECOMMENDATION: Change definition of Exposed (As applied to wiring methods) as follows:
Exposed (As applied to wiring methods). On or attached to the surface or ~~behind panels designed to allow access.~~ Visible to view without removal of panels or obstructions.
SUBSTANTIATION: The present definition treats exposed as being the same as accessible. Prior to the 1999 NEC it referenced See "Accessible: (As applied to wiring methods)" as part of the definition. This part of the definition was deleted in the 1999 NEC and neither the ROP or the ROC appears to include reasoning for this. Using Webster's Dictionary which tells us that "to expose" is to uncover or bring into view means, that while it is not uncovered or not in view, it is not exposed. The problem with using the present definition is that it renders part of the Code such as the exception to Section 250-50 as useless or in fact dangerous with regard to the purpose of Section 250-50. As an example, if this exception had read in part "the entire length of the interior metal water pipe that is being used for the conductor is accessible" rather than saying exposed, would it serve the purpose it was intended for? Why do we say in Section 318-6(h) that cable tray shall be "exposed and accessible" when under the present definitions they are one and the same. Prior to 1971, the NEC definition of exposed was "not concealed" but since the definition of concealed paralleled "inaccessible", the definition of exposed was changed to parallel "accessible". We have two pair of words, each pair having opposite meanings. Something is either "exposed" or "concealed" and something is either "accessible" or "inaccessible'". I believe it's time to correct our definitions. See my proposal to change definition of concealed.
PANEL ACTION: Reject.
PANEL STATEMENT: The existing definition is expressly limited to wiring methods. Changing this definition could result in unintended consequences to other NEC articles.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4379)

1- 139 - (100-Fastened in Place (New)): Reject
SUBMITTER: Paul Dobrowsky, Holley, NY
RECOMMENDATION: Add the following definition:
Fastened In Place (as applied to utilization equipment). Equipment that is held in position by fasteners, piping, hose connections, or other means.
SUBSTANTIATION: Utilization equipment, such as waste disposals, swimming pool pumps, etc., that is held in place by piping or hose connections without the use of specific additional fasteners is being interpreted as not being fastened in place. Permissible loads and computation of loads on circuits and receptacle outlet locations are being compromised. This term is used in more than one article, therefore belongs in Article 100.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel concludes the submitter's intent is satisfied by the existing NEC requirements in Section 110-13(a) and supported by most product standards.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2323)

1- 140 - (100-Feeder, Motor): Reject
NOTE: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 11 for information.
SUBMITTER: Mark Ptashkin, City of Phoenix, AZ
RECOMMENDATION: Add a new definition to read as follows:
Feeder, Motor. Any feeder, including those that serve panelboards, switch boards, and motor control centers, that carries current to supply a motor.
SUBSTANTIATION: There is confusion as to what exactly a motor feeder is, and corresponding difficulty in apply the relative code sections.
Many believe that once a motor branch circuit or feeder is terminated at a panel, switchboard or motor control center, it no longer is treated as a motor feeder for the purposes of sizing and protection. There are some circumstances that this may present problems, such as sizing the overcurrent device in such a manner as to permit a motor to start.
This definition would go a long way to clearing up the difficulty in the use of articles 430-62 and 63 as well as making the code more user friendly.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition is considered unnecessary and does not add clarity to the use of the term. Refer to CMP-11 for information.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2929)

1- 141 - (100-Garage): Accept in Principle
SUBMITTER: Robert R. Sallaz, City of Munroe Falls, OH
RECOMMENDATION: Revise the definition to read as follows:
Garage. A building or portion of a building in which one or more self-propelled vehicles ~~carrying volatile flammable liquid for fuel or power~~ are kept for use, sale, storage, rental, repair, exhibition or demonstrating purposes. ~~and all that portion of a building that is on or below the floor or floors in which such vehicles are kept and that is not separated therefrom by suitable cutoffs.~~ For commercial garages see Section 511-1.
SUBSTANTIATION: The current 66 word sentence defining "garage" is too lengthy, unclear, and does not apply to the term as used in Section 625-29 for electrical vehicles. By making the current FPN the second sentence it will follow the Style Manual.
PANEL ACTION: Accept in Principle.
Revise the definition to read as follows:
"Garage. A building or portion of a building in which one or more self-propelled vehicles can be kept for use, sale, storage, rental, repair, exhibition or demonstration purposes.
FPN: For commercial garages, repair and storage, see Article 511."
PANEL STATEMENT: The panel agrees with the submitter, but prefers the reference to Article 511 as a FPN.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3061)

1- 142 - (100-Ground-Fault Circuit Interrupter): Accept in Principle in Part
SUBMITTER: Larry F. Miller, Nat'l Electrical Mfrs Assn. (NEMA)
RECOMMENDATION: Change the definition to define Class A protection.
Ground-Fault Circuit Interrupter. A device intended for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds ~~some predetermined value that is less than that required to operate the overcurrent protective device of the supply circuit~~ the values established for a Class A device. Class A, when applied to a Ground-Fault Circuit Interrupter, is a device that:
(a) will interrupt the circuit to the load when the interrupter ground fault current is 6 mA or more in a time not greater than given by the equation:

$$T = (20/I)^{1.43}$$

where:
T = time in seconds, and
I = ground-fault current in rms milliamperes for fault currents between 6 mA and the maximum voltage divided by 500 ohms.

(b) and will not interrupt the circuit to the load when the ground fault current is 4 mA or less (when the ambient air temperature is

less than -5°C or more than 40°C, the minimum trip current may be 3.5 mA instead of 4 mA).

(c) and is capable of keeping within the requirements in (a) should the identified circuit conductor (neutral) become inadvertently grounded between the interrupter and the load.

The prime function of a Class A GFCI, therefore, is to provide protection against hazardous electric shocks from leakage currents flowing to ground from defective circuits or equipment. It does not provide protection against shock should a person make contact with two of the circuit conductors on the load side of the GFCI.

SUBSTANTIATION: Requirements in the Code are for Class A protection. The current definition is unclear with respect to what constitutes "protection of personnel" or what the "established period of time" is. By specifically calling out the requirement for a Class A device, the ambiguities are eliminated.
PANEL ACTION: Accept in Principle in Part.
Revise the definition to read as follows:
"Ground-Fault Circuit Interrupter. A device intended for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds the values established for a Class A device.
FPN: Class A ground-fault circuit interrupters trip when the current to ground has a value in the range of 4 to 6 mA. For further information, see Standard for Ground-Fault Circuit Interrupters, UL 943."
PANEL STATEMENT: The panel concludes that this revision meets the submitter's intent without including a requirement in the definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1544)

1- 143 - (100-Grounded Condcutor, FPN (New)): Reject
SUBMITTER: Thomas J. Conlan, Conlan's "The Electrician Inc."
RECOMMENDATION: Revise definition to read as follows:
Grounded Conductor:
A system or circuit conductor that is intentionally grounded.
Add a fine print note:
FPN: Basically a grounded conductor is a conductor designed to carry current, for example in a 2 conductor power cord that contains a grounded conductor (polarized/identified) as addressed in Article 200 and 400 and a hot conductor basically addressed in Article 240. Also electrical training to the theory of Kirchoffs law dictates that whatever current goes into a circuit must come out, which relates to if 1 amp goes in the hot conductor, 1 amp leaves through the grounded conductor so the grounded conductor is a current carrying conductor.
SUBSTANTIATION: The definition is very confusing to most electrical people and no solid definition has really been established as to the training and design of the conductor.
It would solve a lot of problems to insert a fine print note and what the conductor was designed to do.
Food for thought - the grounding conductor is designed to carry fault current.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed Fine Print Note is not entirely correct. The Fine Print Note does not add clarity to the definition of grounded conductor. The substantiation does not identify any specific problems that would be solved by the addition of the proposed Fine Print Note.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3873)

1- 144 - (100-Grounding Electrode (New)): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 5 for information.
SUBMITTER: J. Philip Simmons, Olympia, WA
RECOMMENDATION: Add the following definition:
Grounding Electrode. A conducting element used to connect electrical systems or electrical equipment to earth.
SUBSTANTIATION: This term needs to be defined in Article 100 as it is used in several articles in the NEC. Articles where this term is used include 250, 280, 501, 502, 503, 504, 545, 547, 551, 553, 640, 675, 690, 800, 810, 820, and 830.
PANEL ACTION: Reject.
PANEL STATEMENT: The substantiation does not identify a problem requiring an additional definition. The panel refers this proposal to CMP-5 for action.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #658)

1- 145 - (100-Grounding Electrode Conductor): Accept in Principle
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of Grounding Electrode Conductor to read as follows:
The conductor used to connect the grounding electrode to the equipment grounding conductor, to the grounded conductor, or to both, ~~of the circuit~~ at the service ~~equipment, or~~ at ~~the source of~~ a separately derived system or other derived system.
SUBSTANTIATION: The definition does not literally apply to a (grounding electrode) conductor attached to a service at a location other than service equipment as permitted by Section 250-24(a)(1)(d), nor to a conductor attached at a point remote from the source of a separately derived system as permitted by Section 250-30(a)(1)(2), nor to a grounding conductor for sources which are not services or separately derived systems.
Outside secondary conductors from a separately derived system per Section 240-21(b)(4) could have a grounding connection at the disc/overcurrent device which may be far from the source.
An alternate power source generator used with a solid neutral connection to a transformer secondary results in neither source meeting the definition of separately derived. (See my proposal for Section 250-51).
Transformers supplying secondary ties per Section 450-6 also do not appear to meet the definition of separately derived systems and the definition doesn't cover the grounding conductor for such systems.
PANEL ACTION: Accept in Principle.
PANEL STATEMENT: The panel believes that the action on proposal 1-146 meets the intention of the submitter.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3346)

1- 146 - (100-Grounding Electrode Conductor): Accept in Principle
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 5 for comment.
SUBMITTER: Paul Dobrowsky, Holley, NY
RECOMMENDATION: Revise as follows:
Grounding Electrode Conductor. The conductor used to connect the equipment grounding conductor, the grounded conductor, or both ~~grounding electrode(s) equipment grounding conductor, to the grounded conductor, or to both, of the circuit~~ at the service equipment, at each building or structure where supplied from a common service, or at the source of a separately derived system.
SUBSTANTIATION: The language needs to be the same for services, separately derived systems, and where multiple buildings or structures exist. The conductor being connected to an electrode should be consistently defined whether it is at the service or at a building supplied by a feeder. The term grounding electrode conductor should be used consistently where circuits or systems are connected to a grounding electrode.
A proposal has been submitted to modify Section 250-32(f) to be consistent with the proposed change here.
PANEL ACTION: Accept in Principle.
Revise proposed text as follows: "Grounding Electrode Conductor. The conductor used to connect the grounding electrode to the equipment grounding conductor, to the grounded conductor, or to both, at the service equipment, at each building or structure where supplied from a common service, or at the source of a separately derived system."
PANEL STATEMENT: The definition needs to indicate that the grounding electrode conductor is connected to the grounding electrode. Refer to CMP-5 for comment.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:

AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3781)

1- 147 - (100-Grounding System): Reject
SUBMITTER: Behzad Eghtesady, City of Los Angeles, CA
RECOMMENDATION: Grounding System. It consists of all interconnected grounding connections in a specific power system that is isolated from adjacent grounding system. The isolation is provided by transformer primary and secondary windings that are coupled only by magnetic means. Such system boundaries are defined by the lack of a physical connection that is either metallic or through a significantly high impedance.
SUBSTANTIATION: Currently there are no definition for what is a system ground. The current Webster or any other technical dictionary does not contain any such definitions.
Providing this definition will clarify the intend of the code that:
1. There be more than one system ground within a given installation.
2. Clarify the difference between equipment ground and system ground.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition contains the term being defined and contains a requirement that is prohibited by Section 2.2.2 of the NEC Style Manual.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3787)

1- 148 - (100-Habitable Room (Space) (New)): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 2 for action in Article 210.
SUBMITTER: John I. Williamson, Minnesota Board of Electricity
RECOMMENDATION: Create a new definition for Habitable Room (Space) that could be applicable throughout the code including, but not limited to, Section 210-8(a)(2)
Habitable Room (Space). A habitable room (space) is space in a structure for living, sleeping, eating or cooking. Bathrooms, toilet compartments, closets, hallways, storage or utility space, and similar areas are not considered habitable space.
SUBSTANTIATION: Substantiation - There currently is no definition in the code for "habitable room" (space). The typical dictionary definition for "habitable" is too ambiguous to be relied on for code application. This proposed definition appears to be correlated with the use of the word "habitable" in the following sections including, but not limited to: Section 210-8, Section 210-52, and Section 210-70. Although building codes will usually contain a definition for habitable room, the electrical code is enforced in many jurisdictions that do not adopt a basic building code. The electrical code is often relied upon as a stand-alone document and must include definitions for specific non-electrical terms.
PANEL ACTION: Reject.
PANEL STATEMENT: The National Electrical Code does not generally classify occupancies or spaces within buildings. This type of classification is best left to the building code provisions of which the term "habitable room" is one of the spaces defined in the 2000 International Building Code and is almost identical to the proposed definition. Forward to CMP-2 for action on proposed new definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #444)

1- 149 - (100-In Sight From): Accept
SUBMITTER: Technical Correlating Committee National Electrical Code
RECOMMENDATION: In the definition of "In Sight From", replace "50 ft (15.24 m)" with "15 m (50 ft)".
SUBSTANTIATION: The proposed revision is intended to comply with the NFPA No. 1M Manual of Style Section 4.1 with respect to the placement of units and values of measurement, i.e., show the SI units as the preferred and inch-pound units immediately following in parenthesis.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #659)

1- 150 - (100-In Sight From (Within Sight From, Within Sight)): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of In Sight From (Within Sight From, Within Sight) to read as follows:
Where this Code specifies that one equipment shall be "in sight from", "within sight from", or "within sight", etc. of another equipment, the specified equipment <u>shall be immediately adjacent to the other, or where normally illuminated so as</u> to be visible <u>from the other equipment, shall</u> ~~and~~ not be more than 50 ft (15.24 m) distant from the other <u>equipment.</u>
SUBSTANTIATION: Proposal specifically invokes an illumination requirement (natural or artificial) which is only inferred by the word "visible". Equipment which complies when there is illumination won't comply when lighting is off in a building or where outside during darkness and no specifically required illumination is provided.
"Normally illuminated" provides for natural or artificial type when the location is occupied by a person(s).
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition does not add clarity to the present definition. The term "adjacent" is vague and unenforcable according to the Style Manual.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1400)

1- 151 - (100-In Sight From (Within Sight From, Within Sight)): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of "In Sight From (Within Sight From, Within Sight)" to read as follows:
Where this Code specifies that one equipment shall be "in sight from", within sight from", or "within sight", etc., of another equipment, the specified equipment is to be ~~visible~~ <u>in direct line of sight from,</u> and not more than 50 ft. (15.24m) distant from the other.
SUBSTANTIATION: Editorial. Dictionary definition of "visible" is "capable of being seen", "perceptable of vision", "in full view or readily seen". A disconnecting means located 50 ft from a motor controller and complying with the rule while there is adequate artificial or natural illumination may not be visible from the controller when there is no artificial or natural illumination at the disconnecting means. For example, in a plant during night time shudown where local illumination is provided at the controller and motor location for maintenance or repair but with no illumination at the remote disconnecting means. Where a motor controller at an oil well pump or similar outdoor installation is 50 ft. from a service disconnect serving as the disconnecting means for the motor and controller and no artificial illumination is provided at the disconnect, it may not be visible during night time or dense fog. A disconnecting means for air conditioning equipment installed outdoors and 50 ft. distant may not be visible under the same conditions.
Section 110-26(d) only requires illumination for certain equipment, and then only where installed indoors.
"Direct line of sight" sould provide for visibility under "normal" conditions but does not impose the condition to always be visible. A strict interpretation of the rule would require artificial illumination at the disconnecting means, and prohibit installations where dense fog may occur.
Additionally, the absence of the word "from" after "visible" is literally unclear whether the equipment is to be merely visible, or visible from the other equipment, which is the intent but not plainly stated. Ambiguity does not serve the Code well.
PANEL ACTION: Reject.
PANEL STATEMENT: The substantiation does not support the recommended change. The panel concludes that the present language in the definition adequately addresses situations where one piece of equipment is not in sight of another without regard to the time of day.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3931)

1- 152 - (100-Industrial (New)): Reject
SUBMITTER: Charles J. Palmieri, Palmieri Assoc.
RECOMMENDATION: Add new definition as follows:
Industrial. A qualifying term referring to premises that under normal business employ a permanent or semi-permanent staff for the purpose of activity is to manufacture and distribution a product or group of products.
SUBSTANTIATION: There are over 70 hits in the 1999 Code referencing the term industrial. In many instances the application of specific wiring methods and various items of utilization equipment may be installed in either retail, residential, or manufacturing locations. It is imperative that the Code Making Panel clarify these occupancies to enable the authority that has jurisdiction to evaluate each installation in a consistent manner.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "industrial" is in common use, is well understood, and does not need a definition in Article 100. The proposed definition might well encompass a commercial operation.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2322)

1- 153 - (100-Industrial Occupancy (New)): Reject
SUBMITTER: Mark Ptashkin, City of Phoenix, AZ
RECOMMENDATION: Add a new definition to read as follows:
Industrial Occupancy. For the purposes of the NEC, To be an Industrial occupancy, all of the following conditions must be met.
(1) Conditions of maintenance and engineering supervision ensure that only qualified persons will monitor and service the system.
(2) The premises wiring system has 2500 kVA or greater of load used in industrial process(es), manufacturing activities, or both, as calculated in accordance with Article 220.
(3) The premises has at least one service that is more than 150 volts to ground and more than 300 volts phase-to-phase.
SUBSTANTIATION: There is no definition of just what an industrial occupancy is, even though it shows up in the NEC over 70 times.
This definition would give individuals utilizing the code clear guidelines as to just what an industrial occupancy is, in addition to making the code more user friendly. It has been argued that industrial occupancies include facilities such as data processing, large multi-building commercial facilities and can be utilized for facilities such as high schools.
There are possible problems that may arise if this is approved. Sections 240-21(c)(3) and 250-21 may be clouded by this submission, but on a whole these are minor and the local authority having jurisdiction may grant leeway on these two sections.
Note that this definition parallels Section 240-91.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition contains a requirement which is prohibited by Section 2.2.2 of the NEC Style Manual.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3642)

1- 154 - (100-Interrupting Rating): Reject
SUBMITTER: Jim Brozer, Acton, MA
RECOMMENDATION: Add the following as a second Fine Print Note to the definition of Interrupting Rating:
"Multi-pole overcurrent devices have both a multi-pole interrupting rating and a single-pole interrupting rating at any one particular voltage."
SUBSTANTIATION: This addition is needed because most users do not understand that 2 and 3 pole overcurrent devices have two (2) interrupting ratings. This needs to be pointed out so that the users can properly apply these products. I have provided a copy of Table 7.1.7.2 from UL 489 that lists the single-pole interrupting ratings under the bold "Individual" columns.
Single-pole interrupting ratings become especially critical on corner grounded delta systems, resistance grounded systems, center point grounded delta systems, and ungrounded systems, all systems where one or two faults can cause full voltage to appear across one pole, thus necessitating compliance with single-pole interrupting ratings.
For example, using the table 7.1.7.2 from UL 489, all 60 amp, 480 volts, 3-pole circuit breakers have an 8,600 ampere single-pole interrupting rating. The table is used for the minimum interrupting ratings tests. There is no similar table for the higher interrupting ratings tests. Therefore, you could have a 0-800 amp, 480 volt molded case circuit breaker, with a marked interrupting rating of 100,000 amperes, that was only tested at 8,660 amperes with 480 volts across one pole. This is a serious issue that can be addressed by bringing it to the attention of users so that they can apply these devices within their ratings.
Note: Supporting material is available for review at NFPA Headquarters.
PANEL ACTION: Reject.
PANEL STATEMENT: Specific test conditions do not affect the definition of "Interrupting Rating".
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3622)

1- 155 - (100-Intrinsically Safe Systems (New)): Reject
SUBMITTER: Sukanta Sengupta, FMC Corp.
RECOMMENDATION: Add definition of "Intrincically Safe Systems"
Intrinsically Safe Systems. See Article 504.
SUBSTANTIATION: A listing of this major item of the code in Article 100 is essential.
PANEL ACTION: Reject.
PANEL STATEMENT: All references to the term "Intrinsically safe systems" in the Code refer specifically to Article 504 and the definition contained therein. The proposal does not suggest inclusion of the definition in Article 100, but merely refers to the present definition in Article 504.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #347)

1- 156 - (100-Kitchen (New)): Reject
SUBMITTER: Mike Melaney, Moraine Park Technical College
RECOMMENDATION: Add a definition for kitchen to read as follows:
Kitchen. A separate room with permanent means for cooking and food preparation and one or more of the following; 1 sink, dishwasher, trash compactor, refrigerator.
SUBSTANTIATION: 1) Section 210-52(b)(3) requires no small appliance branch circuit shall serve more than 1 kitchen, but there is no definition of a kitchen.
2) In hotel rooms, a dorm refrigerator with a microwave on top could be considered a kitchen which makes the room a dwelling unit requiring more circuits.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "kitchen" is in common use, is well understood, and does not need a definition in Article 100 for proper application of the Code rules.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3789)

1- 157 - (100-Kitchen (New)): Reject
SUBMITTER: John I. Williamson, Minnesota Board of Electricity
RECOMMENDATION: Create a new definition for Kitchen that could be applicable throughout the code.
Kitchen. An area generally designated for storage, preparation, cooking, and serving of food. Cleaning and washing of food equipment and utensils also is conducted in this area.
SUBSTANTIATION: Substantiation - There currently is no definition in the code for "kitchen". The typical dictionary definition for "kitchen" is too ambiguous to be relied on for code application. This proposed definition appears to be correlated with the use of the word "kitchen" throughout the code. Very often the electrical code is relied upon as a stand-alone document in non-building code areas and must include definitions for specific non-electrical terms. Section 210-52(b)(3) states that no small-appliance branch circuit shall serve more than one "kitchen". This new definition will enable authorities having jurisdiction to better differentiate between kitchens and the increasingly common large wet bar areas that may have the "appearance" of being a kitchen.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "kitchen" is in common use, is well understood, and does not need a definition in Article 100 for proper application of the Code rules.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3414)

1- 158 - (100-Labeled): Reject
SUBMITTER: Nicholas T. Abbatiello, Spencerport, NY
RECOMMENDATION: Revise the definition of "Labeled" to read:
"...that maintains periodic inspection of production of labeled equipment and materials or who field evaluates unique equipment and machinery, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner."
SUBSTANTIATION: Many agencies now have "Field Evaluation" programs in which an experienced "Field Engineer" performs an evaluation of the equipment at the manufacturer's site. If the equipment, which is usually utilization type equipment such as industrial machinery, is acceptable, a "Field Evaluation Label" is applied. This machinery is or equipment is a one-of-a-kind and will not be subject to periodic inspections. As the definition of "Labeled" is now written, the "Field Evaluation Label" is technically not acceptable as periodic inspection of production of the labeled equipment is not performed.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel realizes that labeling of field evaluated equipment does not involve periodic inspections, however the panel concludes that the existing definition of Labeled is broad enough that field evaluation is included. It is not necessary to specifically name field evaluation in the definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2208)

1- 159 - (100-Labeled, Listed): Reject
SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.
RECOMMENDATION: Revise as follows:
Labeled. Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction (approved) and concerned with product evaluation,...
Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction (approved) and concerned with evaluation of products or services,...
SUBSTANTIATION: "Approved" is defined in Article 100 of the NEC as "acceptable to the authority having jurisdiction." By adding this word here parenthetically within these definitions, it gives increased awareness and exposure to the reader of the code emphasizing the meaning of the word "approved" as used in the code.
PANEL ACTION: Reject.
PANEL STATEMENT: The parenthetical use of the word approved adds no additional meaning or clarity to the definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2380)

1- 160 - (100-Liquid, Combustible (New), Liquid, Flammable (New)): Reject
SUBMITTER: William E. Bickner, Stillwater, MN
RECOMMENDATION: Add the following definitions:
Liquid, Combustible: A liquid designated as Class II, III, IIIA, or IIIB, having a flash point at or above 100°F (37.8°C).
Liquid, Flammable: A liquid designated as Class IA, IB, or IC, having a flash point below 100°F (37.8°C) and having a vapor pressure not exceeding 40 psia at 100°F (37.8°C).
Revise the term below as shown, to group the entries alphabetically:
~~Volatile flammable liquid~~ Liquid, volatile flammable.
SUBSTANTIATION: Definitions of these terms would be helpful to Code users, who often seem to be unsure whether the requirements for Class I locations apply to liquids such as jet fuel, diesel fuel, or paint thinner. The definitions proposed are based on those in NFPA 497.
PANEL ACTION: Reject.
PANEL STATEMENT: The controlling document for these definitions is NFPA 30, not NFPA 497. Although technically correct, these definitions are not complete and those requiring a complete defintion should be directed to NFPA 30.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4153)

1- 161 - (100-Listed): Accept
SUBMITTER: Frederic P. Hartwell, Hartwell Electrical Services, Inc.
RECOMMENDATION: Revise as follows:
Listed. Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or services meets ~~identified~~ appropriate designated standards or has been tested and found suitable for a specified purpose.
SUBSTANTIATION: This was Comment 1-42B in the prior cycle. It restores the wording of the 1996 NEC, which should never have been changed. This wording was put there by one of the greatest UL participants in the NEC process throughout its history. The point remains valid, that listing was meaningless without listing in conformity to the appropriate standard, which needed to be designated by that agency. Now that NFPA has gotten the message and revised Section 3-3.6.1 of the Regulations accordingly, the NEC should follow suit.
PANEL ACTION: Accept.
PANEL STATEMENT: The panel accepts the recommended language which is consistent with the definition of listed in the Regulations Governing Committee Projects.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3135)

1- 162 - (100-Live Parts): Accept in Principle
SUBMITTER: Joseph J. Andrews, Electrical Safety Resources, Inc.
RECOMMENDATION: Revise the definition of "Live Parts" to read:
Live Parts. Electric conductors, buses, terminals or components that are a shock hazard when uninsulated or exposed.
SUBSTANTIATION: The current definition of live parts is very confusing. It reads, "Electric conductors, buses, terminals, or components that are uninsulated or exposed and a shock hazard exists." There are no punctuation marks among the words "uninsulated or exposed and a shock hazard exists." One does not know whether the word "exposed" goes with "uninsulated" or if it goes with "and a shock hazard exists."

Under NFPA 70E, Proposal 70E-48 (which tried to change the definition, but was rejected), the following Committee Statement was made: "The concept of live parts requires two conditions to be present before a part is considered live. Condition no. 1 is uninsulated or exposed. The second condition is where a shock hazard exists." This statement indicates that there should at least be a comma after the word "exposed."

However, even with the addition of a comma, there is still confusion with interpretation of the existing words. This confusion leads to the question, "Are uninsulated bus bars, in an enclosure with its door closed, considered live parts?" Traditionally, the answer would have been "yes." But now, some people are saying "no," with the explanation that uninsulated energized bus bars in an enclosure are not a shock hazard since they are protected from contact by the enclosure. This logic implies that the parts change state from "live" to "not live" depending upon the opening and closing of a door. There is also question about whether or not overhead lines are to be considered "live" since they are usually unreachable by other than qualified persons, and therefore not a normal shock hazard.

At the NFPA 70E meeting on comments in June, 1999, there was a lot of discussion and disagreement about this definition, indicating that there is a need for clarification. The Committee decided not to change the definition because it is now in the NEC, and that the same definition should apply to all NFPA 70 series documents, with the NEC being the lead document (Committee Statement on Comment 70E-10). Based on that statement, change has to be made in the NEC first. The definition now existing in the NEC was proposed and accepted for the 1996 NEC, and was derived from the definition placed in the 1995 edition of NFPA 70E. That definition, in turn, originated in the NEC Manual of Style.

The proposed definition maintains the two conditions stated by the NFPA 70E Committee, while rearranging the words to improve understanding.

PANEL ACTION: Accept in Principle.
PANEL STATEMENT: See panel action and statement on Proposal 1-163.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4425)

1- 163 - (100-Live Parts): Accept in Principle
SUBMITTER: Paul Dobrowsky, Holley, NY
RECOMMENDATION: Revise text as follows:

Live Parts. Electric conductors, buses, terminals, or components that are uninsulated or exposed ~~and a shock hazard exists~~.

SUBSTANTIATION: Based on the existing definition, live components placed in an enclosure are no longer considered live parts because a shock hazard does not exist (to the general public). Live parts are typically required to be guarded by enclosure or elevation. Once that is accomplished are they then not considered live parts? An individual in close proximity to live parts that are elevated may be exposed to a hazard. The definition of the components should not change depending on whether they are guarded or not.
PANEL ACTION: Accept in Principle.
Revise proposal as follows: Live Parts. Electric conductors, buses, terminals or components that present a shock hazard while energized.
PANEL STATEMENT: The listed items should be considered "live parts" if they present a shock hazard to anyone regardless of whether they are insulated, uninsulated, enclosed or exposed. This definition meets the intent of the submitter.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 11
NEGATIVE: 1
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
MINICK: The new definition is inconsistent with the way the term is now used in the National Electrical Code. The definition as proposed does not add clarification and in fact may be less clear.

(Log #3399)

1- 164 - (100-Location-Dry Location): Reject
SUBMITTER: Brian Spindle, S&A Electric
RECOMMENDATION: Add new text to the definition to read as follows:

"The inside of a raintight raceway which is installed above grade and arranged to drain shall be considered a dry location."

SUBSTANTIATION: 1. Clarification of this point is needed in the body of NEC.

2. Wire need not be dereated in locations which truly are dry.

PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition contains a requirement which is prohibited by Section 2.2.2 of the NEC Style Manual.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #1157)

1- 165 - (100-Luminaire): Accept in Principle

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 18 for information.

SUBMITTER: William Buckson, Hubbell Lighting Inc.
RECOMMENDATION: Remove the FPN under 410-1 and add the term Luminaire to Chapter 1, Article 100 Definitions, as follows:

Luminaire. A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps, and to connect the lamps to the power supply.

(See the companion proposal for replacing the terms "lighting fixture, lighting fixtures" and "fixture, Fixtures" with "luminaire, luminaires").

SUBSTANTIATION: 1. Lighting standards that have or are being developed, revised and adopted by the U.S., Canada, and Mexico are utilizing the IES term Luminaire in lieu of the term fixture. This includes the new UL/CSA BI-NATIONAL <u>luminaire</u> standard, which will ultimately replace the UL 1570, 1571, and 1572 standards. (These are the very standards used to evaluate the lighting products required to be Listed and Approved, according to the NEC and verified by the Authorities Having Jurisdiction).

2. The Canadian Electrical Code has used the luminaire term for the last ten years.

3. The Tri-NATIONAL lighting standard currently being developed will be designated as a <u>luminaire</u> standard.

4. The National Electrical Manufacturers Association has recently retitled its "Lighting Fixture Section, to <u>Luminaire</u> Section".

5. The U.S. National Committee's Technical Advisory Group to the IEC is working on exporting U.S. lighting perspectives into <u>luminaire</u> (IEC) standards.

6. There are initiatives underway by both NEMA and the NFPA to promote and solidify the use of the NEC from a global perspective. The NEC and its IEC counterpart, IEC 60364, have recently undergone an equivalency review conducted by UL, NFPA, IAEC, NIST, and NEMA as part of this global strategy.

7. If the NEC is ever to be considered as an International Standard, it must utilize the proper terminology.

8. The FPN under 410-1 denotes that luminaire is an international term. International does not mean European only, international, includes the U.S.

9. The term fixture, is archaic and a misnomer. The term fixture has many meanings and connotations. A fixture could refer to a building part, any type or number of gas, plumbing, machine, electric or appliance components, a familiar element or feature or even an individual that has been in a position for a long time. The term luminaire however, by its very formulation, communicates its meaning in a more clear and succinct manner, reducing the possibility of misunderstanding or misapplication of the term.

PANEL ACTION: Accept in Principle.
Revise the definition to read as follows:.

"Luminaire. A complete lighting unit consisting of a lamp or lamps together with the parts designed to distribute the light, to position and protect the lamps and ballast (where applicable), and to connect the lamps to the power supply."

PANEL STATEMENT: The panel believes the definition should include reference to ballasts. Refer to CMP-18 for action and removal of the FPN as proposed.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #49)

20- 3 - (100-Maximum Water Level (New)): Accept in Principle
NOTE: The following proposal consists of Comment 20-2 on Proposal 1-109 in the 1998 Annual Meeting National Electrical Code Committee Report on Proposals. This comment was held for further study during the processing of the 1999 NATIONAL ELECTRICAL CODE. The recommendation in Proposal 1-109 was:
Add a new definition to read as follows:
Maximum Water Level: The short term flood level upper most rim of a pool, spa, fountain, hydromassage tub and similar installation.
SUBMITTER: Technical Correlating Committee National Electrical Code
RECOMMENDATION: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 20 for action in Article 680. This action will be considered by the Panel as a Public Comment.
SUBSTANTIATION: This is a direction from the National Electrical Code Technical Correlating Committee in accordance with 3-4.2 and 3-4.3 of the Regulations Governing Committee Projects.
PANEL ACTION: Accept in Principle.
Provide a new definition to be added to 680-2 to read: "Maximum Water Level. The highest level that water can reach before it spills out."
PANEL STATEMENT: This revised definition clarifies the intent of the submitter. See also Proposal 20-30a.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Ryan

(Log #3133)

1- 166 - (100-Metal-Enclosed Power Switchgear (New)): Accept
Note: The Technical Correlating Committee directs the panel to review the use of the word "may" in accordance with 3.1 of the NEC Style Manual. This action will be considered by the Panel as a Public Comment.
SUBMITTER: Christopher Henry, Fluor Daniel
RECOMMENDATION: Add the following definition:
Metal-Enclosed Power Switchgear. A switchgear assembly completely enclosed on all sides and top with sheet metal (except for ventilating openings and inspection windows) containing primary power circuit switching or interrupting devices, or both, with buses and connections. The assembly may include control and auxiliary devices. Access to the interior of the enclosure is provided by doors or removable covers, or both.
SUBSTANTIATION: This definition is taken from IEEE Standard C37.20.2-1993, Section 2.1.9.2. While it is understood that metal-clad and arc-resistant types of switchgear are all metal-enclosed power switchgear, industry commonly uses "metal-enclosed," "metal-clad," and "arc-resistant" as three separate and distinct types of switchgear. The addition of the above definition clarifies what I believe to be the intent of the Code: to include metal-clad and arc-resistant switchgear as types of metal-enclosed switchgear.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #350)

1- 167 - (100-Multi-building Campus-Style Complex (New)): Reject
SUBMITTER: Kenneth W. Birringer, University of Michigan/Rep. Univ. of Michigan Facilities Planning and Design
RECOMMENDATION: Add a definition for multi-building campus-style complex to read as follows:
Multi-building campus-style complex. A group of buildings or a single property and under single management in which a common system of conductors and equipment for the delivery of energy to these buildings is under the same management.
SUBSTANTIATION: A. With the exception of a few sections, the NEC is based on a model of a single utility service supplying a single premises. This proposed change combined with two others provides a means by which the Authority Having Jurisdiction can apply the NEC with consistency to nonutility, inter-building power distribution systems at multi-building campus-style complexes including universities and industrial complexes.
B. In addition, this proposed change provides a definition for the term "multi-building campus-style complex" which was introduced but not defined in Article 695 of the 1996 NEC.
PANEL ACTION: Reject.
PANEL STATEMENT: The term is used only in Article 695 and does not warrant a definition in Article 100.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias
COMMENT ON AFFIRMATIVE:
ANTHONY: This comment is provided on behalf of the higher education industry in general and for an esteemed colleague in particular. The Panel's substantiation is consistent with past practice in other, similar proposals requesting definitions. I agree with the prevailing sentiment that some judicious compromise on the matter of which definitions should be included in the code must be struck to keep the NEC useable. Admittedly, some definitions that presently appear in this section may not meet the same criterion and probably ought to be removed. If 30-odd revisions to the NEC hasn't yet yielded a definition of "neutral"; the definition of a "multi-building campus-style complex" is not likely to come any time soon. The submitter's point about the need to see in the NEC more articulation of the specific requirements for campus-style facilities is not without merit, however; even if the term remains undefined.

(Log #254)

1- 168 - (100-Neutral (New)): Reject
SUBMITTER: Charles M. Trout, Maron Electric Co.
RECOMMENDATION: Add the following new definition to read:
Neutral. The state or condition of the common/return conductor, in a multi-wire circuit or system, when the loads on the phase conductors in that circuit or system are balanced.
SUBSTANTIATION: The term "neutral" is loosely and mistakenly used and accepted by the entire electrical industry. Neutral is not the name of a conductor. It is the state of a conductor, the state in which there is no current flow in a common/return conductor. Thus, the common/return conductor of a multi-wire circuit is in a neutral state when the loads on the phase conductors are balanced. But the return conductor of a two-wire circuit can never be in a neutral state because it is always carrying the return current of the phase conductor. Webster says that "neutral" is belonging to a neutral state, having no electrical charge or not aligned with any side. This proposed terminology would be more useful than current code language because it is technically more accurate and it distinguishes the "neutral state" of a conductor whether it is in a circuit where this conductor is intentionally grounded or is used in an ungrounded system.
This proposal relates to two other proposals for definitions namely: Return conductor and Common Return Conductor.
PANEL ACTION: Reject.
PANEL STATEMENT: A neutral conductor remains a neutral conductor whether the load is balanced or not. The substantiation does not demonstrate a need for a definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2758)

1- 169 - (100-Neutral (New)): Reject
SUBMITTER: Joseph A. Tedesco, Nat'l Technology Transfer, Inc.
RECOMMENDATION: Add definition as follows:
Neutral. A grounded conductor having the same voltage to each ungrounded conductor of the same 3-wire, or 4-wire circuit.
SUBSTANTIATION: Here is a start, although I realize not all neutrals are grounded. The term should be defined in the NEC. CMP 5 will review this same proposal.
PANEL ACTION: Reject.
PANEL STATEMENT: A neutral conductor is not always a grounded conductor and a grounded conductor is not always a neutral conductor.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3004)

1- 170 - (100-Neutral (New)): Reject
SUBMITTER: Rea Hamilton, Abbott Labs
RECOMMENDATION: Add definition for neutral to read as follows:
Neutral. A system or circuit conductor that is intentionally grounded.
SUBSTANTIATION: The common terminology for a grounded conductor is the word neutral and should be added to the code definitions.
PANEL ACTION: Reject.
PANEL STATEMENT: A neutral conductor is not always a grounded conductor and a grounded conductor is not always a neutral conductor.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2833)

1- 171 - (100-Neutral, Neutral Conductor (New)): Reject
SUBMITTER: Melvin K. Sanders, Ankeny, IA
RECOMMENDATION: Add a new definition to read as follows:
Neutral, Neutral Conductor. Point or circuit conductor path by which unbalanced currents reenter the source.
SUBSTANTIATION: Attempting to define a neutral that can be accommodated by the NEC has been known to make strong men fall to their knees and women and children weep. Used extensively throughout the electrical industry, it falls into the category of "I know what it is when I see it even if I can not define it". Section 220-22 requires one to calculate it and Article 310 requires one to investigate it as to whether it provides additional heat stress to conductors in a common raceway or cable, yet when queried, it is identified rather lamely as "The middle wire."
It is part of a circuit path but does not have to be grounded in order to perform as intended.
Therefore, it is not correctly identified as the "grounded conductor" [even though it must be grounded, such as in NEC Section 250-20(b)(1) and (2)]. Some grounded conductors may in fact be a deliberately grounded phase conductor of a corner-grounded three-phase three-wire "delta" connected source and are definitely not a "neutral" as those who have touched them accidentally know.
These issues were consulted while developing the proposed words:
310-15(b)4a: Normally balanced currents from one or two or more phases to a conductor common to the single phase or the poly-phases.
310-15(b)4b: Two phases and a common for a "Wye" system that has current in the common conductor approximately equal to the current in the phase or phases supplying line-to-neutral loads.
310-15(b)4c: Three phases from "Wye" systems that has a conductor common to the three phases and the supplied loads cause frequencies to be higher than the source power line 60 Hz even though the load currents may be equal in the phases.
Also:
"Wye" connected capacitor banks where one bank fails.
Faults that return to the source by any path.
Allows for fault currents to return to the source via the neutral path (IEC refers to this as the PEN).
Balancing currents circulating within the source are not neutral currents under this proposal.
Allow for multi-grounded system neutral currents to return to the source.
PANEL ACTION: Reject.
PANEL STATEMENT: This definition does not take into account harmonic currents. The substantiation does not indicate a need for this definition nor does it point out a problem.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2321)

1- 172 - (100-On Site Generator): Reject
SUBMITTER: Mark Ptashkin, City of Phoenix, AZ
RECOMMENDATION: Add a new definition to read as follows:
On Site Generator. An on site generator is one that is meant to be the primary source of supply to any service.
SUBSTANTIATION: There is no definition of what an on site generator is, even though it is used in several places in the code including Fire Pumps in NEC 695.
PANEL ACTION: Reject.
PANEL STATEMENT: An on-site generator need not be the primary source of power. Supply to a service is only through connection to the serving utility.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #339)

1- 173 - (100-On-Site Power Production Facility (New) and Standby Power Production Facility (New)): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 15 for consideration. This action will be considered by the Panel as a Public Comment.
SUBMITTER: Richard Schneider, Lancaster, SC
RECOMMENDATION: Add the following definitions to 695-2:
On-Site Power Production Facility. (ref. 695-3(a)(2)) A facility producing electric power "on-site" intended to serve as the normal supply of electric power. It differs from standby power production facility in that it is expected to be normally, constantly energized.
Standby Power Production Facility (ref. 695-3(b)) A facility producing electric power "on-site" intended to serve as the alternate supply of electric power. It differs from on-site power production facility in that it is not expected to be normally, constantly energized.
SUBSTANTIATION: Present 695-3(a)(2) uses the term "on-site power production facility" which is undefined in NFPA 70 and NFPA 20 and are applying fire pump controllers erroneously. Authorities having jurisdiction have no present guidance.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "On-site Power Production Facility" only appears in Section 695-3(a)(2) and the term "Standby Power Production Facility" is not contained within the National Electrical Code, therefore, neither term is presently used in two or more Articles. The panel refers this proposal to Code-Making Panel 15 for action.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #660)

1- 174 - (100-Oven, Wall-mounted): Accept in Principle
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panels 2, 19, and 20 for comment.
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Delete definition or alternatively, revise:
A separate oven for cooking purposes, ~~and~~ consisting of one or more electric heating elements, internal wiring, and built-in or separately mounted controls, designed and intended for installation in or on a wall or in a cabinet.
SUBSTANTIATION: Present definition is unneeded as the term defines itself, as do other appliances such as electric range, clothes dryer, water heater, etc., which are commonly defined terms. It does not specify whether heating elements are electric (assumed) or gas (not excluded) and doesn't distinguish an oven part of a range.
PANEL ACTION: Accept in Part.
Delete definition of Oven, Wall-Mounted in Article 100.
PANEL STATEMENT: This definition was deleted as this term is commonly understood by both industry and non-industry and does not require a specific definition to be understood in applying NEC requirements. Refer this proposal to CMP-2, CMP-19, and CMP-20.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #661)

1- 175 - (100-Panelboard): Accept
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise definition of Panelboard to read as follows:
A single panel or group of panel units designed for assembly in the form of a single panel; including buses, automatic overcurrent devices and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box ~~placed in or against a wall or partition~~ and accessible only from the front.
SUBSTANTIATION: Editorial. The definition infers in or against a wall is the only acceptable mounting for a panelboard. Many are suitably installed on posts or poles, or angle iron or strut assemblies and some are suitable for floor mounting. The UL "white book" does not indicate such restrictions.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 10
NEGATIVE: 2
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
DINI: I agree with Mr. Minick's Comment on Negative Vote. The present definition provides guidance to differentiate product application and safety rules between "panelboards" that are generally mounted to a vertical support and "switchboards" that are generally freestanding and mounted to the floor. The "placed in or against a wall or partition" gives the user of the NEC clear permission to place the panelboard enclosure "within any wall" or "against a partition" in a building or in a switchboard application.
MINICK: The present definition provides guidance to differentiate product application and safety rules between "Panelboards" that are generally mounted to a vertical support and "Switchboards" that are generally free standing and mounted to the floor. Panelboards may also be mounted within a switchboard section but the entire list of product application was not intended to be placed in the text. The "placed in or against a wall or partition" gives the user of the NEC clear permission to place the panelboard enclosure "within a wall" or "against a partition" in a building or in a switchboard application.

(Log #4154)

1- 176 - (100-Premises Wiring): Accept
SUBMITTER: Frederic P. Hartwell, Hartwell Electrical Services, Inc.
RECOMMENDATION: Revise as follows:
Premises Wiring (System). That interior and exterior wiring, including power, lighting, control, and signal circuit wiring together with all of their associated hardware, fittings, and wiring devices, both permanently and temporarily installed, that extends from the service point ~~of utility conductors~~ or source of power such as a battery, a solar photovoltaic system, or a generator, transformer, or converter windings, to the outlet(s). Such wiring does not include wiring internal to appliances, fixtures, motors, controllers, motor control centers, and similar equipment.
SUBSTANTIATION: This is a companion proposal to one submitted as part of a comprehensive overhaul of Section 90-2 for the purposes of eliminating conflicts with the NESC. That proposal recognizes an unavoidable political reality, namely, that there are some major industrial players who are using the NESC for their medium voltage campus outdoor distributions, and that they will continue to do so for the foreseeable future. This modification, along with another one covering the definition of service point, establishes the appropriate demarcation, where the two codes interface.
PANEL ACTION: Accept.
PANEL STATEMENT: The panel accepts this recommendation based on the fact that the term "of utility conductors" is redundant.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #318)

1- 177 - (100-Qualified Person): Reject
SUBMITTER: Mark Reese, Nineveh, IN
RECOMMENDATION: Revise definition of Qualified Person to read as follows:
~~One familiar.~~ One who has been formally trained in a nationally recognized program that includes information and hands on experience with the construction and operation of the equipment involved.
SUBSTANTIATION: Ignorance of the basic principals of electrical theory, and the lack of hands on training, can be deadly for the person performing the work. It can also be dangerous for the person performing maintenance.
PANEL ACTION: Reject.
PANEL STATEMENT: Being formally trained in a nationally recognized program is not the only way for as person to become a qualified person. Lack of formalized training also does not mean that a person is ignorant of the basic principals of electric theory.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #3800)

1- 178 - (100-Qualified Person): Accept in Principle in Part
SUBMITTER: Jack H. Zewe, Electrical Consultants, Inc.
RECOMMENDATION: Revise Article 100- Definition for a Qualified Person:
Old text: Qualified Person: One familiar with the construction and operation of the equipment and the hazards involved.
Revised test: One who has skills and knowledge of the construction and operation of the equipment and has received specific safety training on the hazards involved.
From OSHA 29 CFR: 1910.332(b)(3)
(3) Additional requirements for qualified persons. Qualified persons (i.e. those permitted to work on or near exposed energized parts) shall, at a minimum, be trained in and familiar with the following:
OSHA 29 CFR 1910.332(b)(3)(I)
(I) The skills and techniques necessary to distinguish exposed live parts from other parts of
electric equipment.
OSHA 29 CFR 1910.332(b)(3)(ii)
(ii) The skills and techniques necessary to determine the nominal voltage of exposed live parts,
and
OSHA 29 CFR 1910.332(b)(3)(iii)
(iii) The safe approach clearance distances specified by OSHA 29 CFR 1910.333 and the
corresponding voltages to which the qualified person will be exposed.
Note 1: For the purposes of OSHA 29 CFR 1910.331 through 1910.335, a person must have
the safety training required in order to be considered a qualified person.
Note 2: Qualified persons whose work on energized equipment involves either direct contact or
contact by means of tools or materials must also have the training needed to meet 1910.333(C)(2)
SUBSTANTIATION: Align the NFPA definition with the requirements of OSHA Electrical Safe Work Practices requirements. The present definition is weak and does not provide guidance on "who" is authorized to work on electrical equipment that may be energized. The OSHA Electrical Safe
Work Practices Training requirements are very specific on "who" and "what" a person must be able to do (SKILLS)to be considered QUALIFIED.
PANEL ACTION: Accept in Principle in Part.
Revise the definition of Qualified Person to read as follows:
"Qualified Person. One who has skills and knowledge related to the construction and operation of the equipment and has received safety training on the hazards involved."
PANEL STATEMENT: It is not necessary to repeat OSHA requirements in the NEC. The panel concludes that safety training is important.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #662)

1- 179 - (100-Raceway): Reject

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 8 for information.

SUBMITTER: Dan Leaf, Palmdale, CA

RECOMMENDATION: Revise definition of Raceway to read as follows:

Raceway. ~~An enclosed~~ A channel of metal or nonmetallic material designed expressly for holding wires, cables, or busbars, with additional functions as permitted in this code. Raceways include, but are not limited to, rigid metal conduit, rigid nonmetallic conduit, intermediate metal conduit, liquidtight flexible conduit, electrical nonmetallic tubing, electrical metallic tubing, underfloor raceways, cellular concrete floor raceways, cellular metal floor raceways, surface raceways, wireways, cablebus, and busways.

SUBSTANTIATION: Editorial. Some raceways are not totally enclosed ("surrounded by") such as lighting busway, trolley busway, and strut-type raceway (Article 363).

Cablebus certainly appears to meet the definition of raceway. A similar Proposal 1-82 in the A92 TCR was accepted; action on Proposal 1-88 in the A95 ROP removed it from the definition. Substantiation for Proposal 1-88 was based on raceways being required to be continuous which would not permit a discontinuity where conductors pass through walls (open conductors) or where they terminate in switchgear to transformer rooms without framework connection to the equipment (transition to open wiring).

However, such transitions are inferred for raceways by Section 300-16 and can be considered a junction point or splicing point as covered in Section 300-18 which doesn't require raceways to be continuous for the entire length of the circuit.

If cablebus is not a raceway there is no provision similar to Section 300-16 for transitions to open wiring.

PANEL ACTION: Reject.

PANEL STATEMENT: The panel concludes that enclosed is important. Removing the term "enclosed" from the definition could include other wiring methods and materials not considered raceways. Including Cablebus would not be consistant with the definition in Article 365. Refer to CMP-8 for information.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #1830)

1- 180 - (100-Raceway): Reject

SUBMITTER: Peter Fernandez, Peco Energy

RECOMMENDATION: Add:

"metal poles supporting lighting fixtures."

SUBSTANTIATION: See Article 410, Part D, Section 410-15(b) which indicates that a raceway is "a metal pole used to support lighting fixtures."

PANEL ACTION: Reject.

PANEL STATEMENT: Metal poles supporting lighting fixtures are permitted to be raceways only if the conditions specified in 410-15(b) are met. Otherwise they are not raceways and cannot be included in the definition.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #3332)

1- 181 - (100-Remote-Control Circuit): Accept

Note: It was the action of the Technical Correlating Committee that further consideration be given to the comments expressed in the voting. This action will be considered by the panel as a public comment.

SUBMITTER: Paul Dobrowsky, Holley, NY

RECOMMENDATION: Delete the word "remote" from the definition heading. The heading should be Control Circuit.

SUBSTANTIATION: The word remote is vague and adds no value. How far away is considered remote? If the control circuit and "controlled equipment" is in the same enclosure is it still considered remote?

A similar proposal has been submitted for Article 725.

PANEL ACTION: Accept.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 10

NEGATIVE: 2

NOT RETURNED: 1 Macias

EXPLANATION OF NEGATIVE:

DINI: This proposal should be rejected. Code-Making Panel 16, which considered a companion proposal (16-30) to remove the word "remote" from article 725 rejected this idea. They considered the term "remote" to be necessary, the appropriate word, and understood by all.

MINICK: The existing definition is correct. The term "remote" distinguishes control located outside the equipment enclosure from that located inside the enclosure. It should also be noted that Panel 16 rejected companion proposal 16-30 to remove the word "remote" from Article 725.

(Log #255)

1- 182 - (100-Return conductor (New)): Reject

SUBMITTER: Charles M. Trout, Maron Electric Co.

RECOMMENDATION: Add the following new definition to read:

Return Conductor. The conductor in a single two wire circuit or system which is used to carry the load of the phase conductor in that circuit or system back to the source. In a grounded circuit or system, this is the conductor which is intentionally grounded.

SUBSTANTIATION: Too often this conductor is mistakenly referred to as the neutral conductor. It is not a conductor which can be in a neutral state or condition. This conductor is also referred to as the grounded conductor. It is the intentionally grounded conductor in those circuits or systems which are intentionally grounded. Refer to Sections 250-1(1), 250-1(6), 250-21, 250-22, 250-24(d), 250-30(b) and 250-32(c) for circuits or systems which are not required or not permitted to be grounded. Therefore, to refer to the return conductor as the grounded conductor would only be correct if the system or circuit were intentionally grounded. This definition is needed to properly designate respective components of a circuit.

PANEL ACTION: Reject.

PANEL STATEMENT: The term "Return Conductor" is not used in the Code in the sense proposed and therefore does not require a definition. See Panel action on proposal 1-110.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #1040)

1- 183 - (100-Separate Circuit (New)): Reject

SUBMITTER: Charles M. Trout, Maron Electric Co. Inc.

RECOMMENDATION: Add a new definition to read:

Separate Circuit. A circuit that has a defined load on the overcurrent device but which permits the return or grounded conductor to be shared with another circuit.

SUBSTANTIATION: The terms "separate circuit" and "dedicated circuit" are used in the National Electrical Code without any difference in meaning between the two terms. I believe definitions should be made to differentiate between these two terms. A circuit can be separate from other circuits in that its overcurrent protective device is designed to protect a defined load. Its return or grounded conductor may be shared with another circuit, if desired, without affecting the purpose of the circuit and its overcurrent protection. See my proposal for new definition for "Dedicated Circuit".

PANEL ACTION: Reject.

PANEL STATEMENT: The term "separate conductor" is not used in the Code in the sense proposed and therefore the proposed definition does not agree with the present use of the term. See panel action and statement on Proposal 1-125.

NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13

VOTE ON PANEL ACTION:

AFFIRMATIVE: 12

NOT RETURNED: 1 Macias

(Log #3123)

1- 184 - (100-Service Equipment): Reject
SUBMITTER: Neil F. LaBrake, Jr., Niagara Mohawk Power Corp.
RECOMMENDATION: Change:
Article 100 Definitions.
Service Equipment. The necessary disconnecting and overcurrent equipment, usually consisting of a circuit breaker(s) or switch(es) and fuse(s) and their accessories, connected to the load end of service conductors to a building or other structure, or an otherwise designated area, and intended to constitute the main control and cutoff of the supply from the service point.
SUBSTANTIATION: This change is necessary to clarify the intent for the main service equipment function. As an example, some transfer switches are manufactured, listed and labeled "suitable for use as service equipment" and contain only a disconnecting device along with necessary grounding provisions for service equipment. Although the listing agency qualifies the equipment in this manner, they do indicate the installation shall meet national and local requirements. The practice typically recognized as the local requirement is that service equipment needs to be comprised of a switch and fuse or circuit breaker to meet the necessary disconnecting and overcurrent function at the load end of service conductors. The service equipment could contain these devices in one enclosure or within grouped enclosures. In outdoor high voltage stations, the devices are grouped within the same switchyard.
This change will mitigate conflicts of installation arrangements with the requirements of authorities having jurisdiction of the electric supply and the National Electrical Code. See supporting 1999 NEC Article 230, Part F, and Section 230-91.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposal does not add anything to the definition of service equipment, but appears to have an objective of placing a requirement for installation of overcurrent devices in the definition. The requirements for service equipment are necessarily included in Article 230.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4155)

1- 185 - (100-Service Point): Reject
SUBMITTER: Frederic P. Hartwell, Hartwell Electrical Services, Inc.
RECOMMENDATION: Revise as follows:
Service Point. The point of connection between the ~~facilities of the serving utility and the~~ premises wiring and the facilities of the serving utility, or the facilities of a serving entity recognized by the jurisdiction as having substantially equivalent organizational permanence, engineering supervision, and workforce training.
SUBSTANTIATION: This is a companion proposal to one submitted as part of a comprehensive overhaul of Section 90-2 for the purposes of eliminating conflicts with the NESC. That proposal recognizes an unavoidable political reality, namely, that there are some major industrial players who are using the NESC for their medium voltage campus outdoor distributions, and that they will continue to do so for the foreseeable future. This modification, along with another one covering the definition of premises wiring, establishes the appropriate demarcation, where the two codes interface. Please refer to the proposal on Section 90-2 for more substantiation.
PANEL ACTION: Reject.
PANEL STATEMENT: See panel action and statement on Proposals 1-10 and 1-11. The existing definition of service point is more appropriate and complements the definition of service. No technical substantiation was submitted that would support the recognition of non-utility entities in installing electrical conductors and equipment without benefit of the requirements of the National Electrical Code. The code panel disagrees that this proposal would eliminate conflicts, if any exist, between the NEC and NESC concerning the definition of service point.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 11
NEGATIVE: 1
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
TROGLIA: This is a companion proposal to Proposal 1-11 (Log #4151) that contains the rationale for use of the service point as the demarcation between supply systems and premises wiring and reconciles the scopes of the NEC and NESC. See my comment on vote on Proposals 1-10 (Log #52) and 1-11 (Log #4151).
COMMENT ON AFFIRMATIVE:
ANTHONY: There is integrity of purpose in this and other related proposals on subjects related to service point. The submitter should be applauded for keeping the debate on the subject lively and healthy.

(Log #1164)

1- 186 - (100-Service-Entrance Conductors, Overhead System): Reject
SUBMITTER: Dan Leaf, Palmdale, CA
RECOMMENDATION: Revise text to read:
"The service conductors between the terminals of the service equipment and a point usually outside of the building, clear of building walls, where usually joined by tap or splice to the service drop."
Or alternatively add:
FPN: There may be no tap or splice where jacketed multiconductor service cable is employed for the service drop and service-entrance conductors.
SUBSTANTIATION: Edit. Where a jacketed multiconductor service cable is employed as a service drop and continues unbroken as service-entrance conductors there is no tap or splice at the transition. I believe this type installation is done in some parts of the country, and recognized by the exception for Section 230-54(e).
PANEL ACTION: Reject.
PANEL STATEMENT: The existing definition has not resulted in any reported misunderstanding. The word "usually" does not add clarity to the present wording. The proposed Fine Print Note is unclear. No technical substantiation was submitted to support the recommendation.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2320)

1- 187 - (100-Standby Source of Supply (New)): Reject
SUBMITTER: Mark Ptashkin, City of Phoenix, AZ
RECOMMENDATION: Add a new definition to read as follows:
Standby Source of Supply. A standby source of supply may be any source of supply that is meant to be available should the primary supply system become unavailable.
SUBSTANTIATION: There is some question within the electrical community of what a standby system is. Many feel that if for example, a generator feeds an emergency system, the generator becomes an emergency generator and may not feed any other loads. Others feel that only the system, I.E. emergency, legally required, optional etc, is to be classed as such and the generator in this example, is merely a standby generator.
The purpose of this proposal is to clarify that any redundant source of supply is in fact a standby source of supply.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "standby source of supply" is not used in the Code and therefore does not warrant a definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias
COMMENT ON AFFIRMATIVE:
ANTHONY: I will only add to the Panel's substantiation by referring the submitter to Chapter 7 and to the Fine Print Notes that contain other references. While "standby source of supply" does not appear, the words "standby source" appear 3 times and "standby" appears some 32 times.

(Log #1935)

1- 188 - (100-Structure): Accept
SUBMITTER: Donald R. Cook, Shelby County Building Insp., AL/Rep. Southern Section IAEI
RECOMMENDATION: Provide the following definition in Article 100: Structure. That which is built or constructed.
SUBSTANTIATION: The above term is used in more than 100 places in the NEC. These places are in more than 15 different articles under the responsibility of several different code panels. Having heard several different opinions from several different code panel members through the years, it seems obvious that to provide uniform interpretation of this term, a definition should be provided.

This is the definition in the proposed 2000 International Building Code which will likely be used by many building inspection departments across the country. This definition would allow the architect and electrical engineer, the general contractor and the electrical contractor and the building inspector and electrical inspector to all use the same definition.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2901)

1- 189 - (100-Structure (New)): Accept in Principle
SUBMITTER: James H. Maxfield, Dover, NH
RECOMMENDATION: Add a new definition to read as follows:
Structure. That which is constructed or built or erected or a portion thereof.
SUBSTANTIATION: The word structure is used throughout the NEC in several locations but is not defined. The definition is intentionally broad so as to include within the NEC everything that is built whether it is constructed solely from electrical components or not. For example, the addition of the definition would clarify the fact that the NEC considers a meter pedestal a structure.
PANEL ACTION: Accept in Principle.
PANEL STATEMENT: The panel prefers the definition found in Proposal 1-188. See Proposal 1-188.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4472)

1- 190 - (100-Structure): Accept in Principle
SUBMITTER: Philip H. Cox, Int'l Assn. of Electrical Inspectors
RECOMMENDATION: Provide the following definition in Article 100 to read:
Structure. That which is built or constructed.
SUBSTANTIATION: The above term is used in more than 100 places in the NEC. These places are in more than 15 different Articles under the responsibility of several different Code Panels. Having heard several different opinions from several different code panel members through the years, it seems obvious that to provide uniform interpretation of this term, a definition should be provided. This definition would allow the architect and electrical engineer, the general contractor and the electrical contractor and the building inspector and electrical inspector to all use the same definition.
PANEL ACTION: Accept in Principle.
PANEL STATEMENT: The panel believes that the intent of the submitter is met by the action on Proposal 1-188.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2499)

1- 191 - (100-Subpanel (New)): Reject
SUBMITTER: Andre R. Cartal, Bldg Dept., Princeton Borough, NJ
RECOMMENDATION: Add a definition of "Subpanel" as a panelboard located in the same building as the service equipment that supplies it.
SUBSTANTIATION: The use of the term subpanel seems to be on the increase in many code articles and seminars and while the NEC does not use this word we would then all know what the word meant when it was used.
PANEL ACTION: Reject.
PANEL STATEMENT: The term "subpanel" is not used in the Code and therefore does not warrant a definition.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2152)

1- 192 - (100-Switching Devices, Circuit Breaker): Accept
SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.
RECOMMENDATION: Revise the definition of Switching Devices, Circuit Breaker, as follows:
A switching device capable of making, carrying, and interrupting ~~breaking~~ currents under normal circuit conditions..., and interrupting ~~breaking~~ currents under specified abnormal circuit conditions,...
SUBSTANTIATION: The phrase "breaking currents" should be replaced with the phrase "interrupting currents" for consistency. CMP 1 has previously accepted a similar proposal. See A98-ROP 1-98a (Log #CP108).
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 11
NEGATIVE: 1
NOT RETURNED: 1 Macias
EXPLANATION OF NEGATIVE:
MINICK: The term "breaking" is correct in context of this specific definition and is consistent with current product standards.

(Log #4036)

1- 193 - (100-Telecommunications): Reject
Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 16 for information.
SUBMITTER: Robert Jensen, dbi-Telecommunications Infrastructure Design/Rep. Building Industry Consulting Service Int'l
RECOMMENDATION: Add:
Telecommunications. Any transmission, emission, and reception of signs, signals, writings, images, and sounds, that is, information of any nature by cable, radio, optical, or other electromagnetic systems.
Adoption of this proposal and associated proposals will effect various Panels and the Correlating Committee. Sections that are effected include:
Communication to telecommunications: 520-5. (a) Exception; 830-10. (d)
Communications to telecommunications: 90-2. (b) 3; 90-2. (b) 4; 90-2 (b) 5; 90-3.; 210-25.; 225-2.; 225-14 (d) 1; 225-14 (d) 2; 225-14 (d) 3; 225-14 (d) 4; 250-4; 250-92. (b) FPN No. 2; 318-3. (a); 328-17.; 328-36.; 336-30 (a) (3); 400-4. (Table 400-4, including note 5 and 11); 501-14.; 501-14 (a); 501-14 (b); 502-14; 502-14 FPN; 502-14 (a); 502-14 (b); 517-30. (c) (3) Exception 2; 517-32. (d); 517-32. (f); 517-40. (a) Exception c.; 517-42 (d); 517-42 (g); 517 F.; 517-80.; 517-80. FPN; 518-4 (a) Exception b.; 530-11. Exception; 604-1.: 604-6 (a) 2. Exception No. 2; 620-36.; 625-17; 640-21 (b); 640-21 (c); 640-42. (b); 640-42. (c); 645-5 (d); 645-5 (e); 645-6 FPN; 700-1 FPN No. 3; 701-2. FPN; 702-2. FPN; 725-54 (a); 725-54 (a) (1); 725-54 (a) (1) Exception 1; 725-54 (a) (1) Exception 2; 725-54 (a) (1) Exception 2 a.; 725-54 (a) (1) Exception 3; 725-54 (a) (1) Exception 4 a.; 725-54 (a) (3); 725-54 (a) (3) Exception 1; 725-54 (a) (3) Exception 2; 725-54 (b) (4); 725-54 (b) (4) Exception; 725-54 (b) (5) c.; 725-54 (b) (5) e.; 725-61 (e) Exception No. 5; 760-54 (a); 760-54 (a) (1); 760-54 (a) (1) Exception No. 1; 760-54 (a) (1) Exception No. 2; 760-54 (a) (1) Exception No. 2 a.; 760-54 (a) (1) Exception No. 3; 760-45 (a) (3); 760-45 (a) (3) Exception No. 1; 760-45 (a) (3) Exception No. 2; 760-54 (b); 760-54 (b) (1); 760-54 (b) (3); 760-61 (d) FPN; 770-4.; 770-52 (a); 770-52 (b) 3.; 770-52 (b) 5.;780-6 (a); 780-6 (b); Article 800 Title; 800-1 FPN No. 3; 800-3; 800-3 FPN; 800-4 FPN; 800-6; 800-7; 800-10; 800-10 (a); 800-10 (a) 1; 800-10 (a) 2; 800-10 (a) 3; 800-10 (a) 4; 800-10 (b); 800-10 (b) Exception No. 2; 800-11; 800-11 (a); 800-11 (c); 800-11 (c) Exception; 800-11 (c) Exception FPN; 800-12 (a); 800-12 (b); 800-12 (c); 800-13; 800-30 (a) FPN No. 1; 800-30 (b) FPN; 800-31 FPN; 800-32; 800-32 FPN No. 1; 800-33; 800-40 (d); E. Title; 800-48; 800-48 Exception; 800-49; 800-50; 800-50 Exception 4; 800-50 Table; 800-50 FPN No. 1; 800-51; 800-51 (a); 800-51 (b); 800-51 (c); 800-51 (d); 800-51 (e); 800-51 (f); 800-51 (h); 800-51 (i); 800-51 (j); 800-51 (k); 800-51 (l); 800-52; 800-52 (a) (1) a.; 800-52 (a) (1) a. 5.; 800-52 (a) (1) b.; 800-52 (a) (1) b. Exception; 800-52 (a) (1) c.; 800-52 (a) (1) c. 1.; 800-52 (a) (1) c. 1. Exception 1; 800-52 (a) (1) c. 1. Exception 2; 800-52 (a) (2); 800-52 (a) (2) Exception No. 1; 800-52 (a) (2) Exception No. 2; 800-52 (d); 800-52 (e); 800-52 (e) Exception; 800-53; 800-53 (a); 800-53 (a) Exception; 800-53 (b); 800-53 (c); 800-53 (d); 800-53 (d) Exception No. 1; 800-53 (d) Exception No. 2; 800-53 (d) Exception No. 3; 800-53 (d) Exception No. 4; 800-53 (d) Exception No. 5; 800-53 (e); 800-53 (f); 800-53 Table; 820-3 (e); 820-3 (f); 820-10 (d) Exception No.2; 820-10 (f) (2); 820-52 (a) (1) a. 3. 820-52 (a) (1) a. 5.; 820-52 (a) (1) b.; 820-52 (a) (1) b. Exception No. 1; 820-52 (a) (2); 820-52 (a) (2) Exception

No.1; 820-52 (a) (2) Exception No. 2; 830 Title; 830-1; 830-1 FPN No. 2; 830-2 Fault Protection Device; 830-2 Network-Powered Broadband Communications Circuit; 830-2 Network-Powered Broadband Communications Circuit FPN; 830-3 (d) 1.; 830-4; 830-4 Table; 830-5; 830-5 Exception 1; 830-5 Exception 2; 830-5 (a); 830-5 (a) (1); 830-5 (a) (2); 830-7; 830-8; 830-9; 830-9 (a); 830-9 (b) 830-9 (b) Exception; 830-10; 830-10 (a); 830-10 (b); 830-10 (c); 830-10 (d) FPN; 830-10 (e); 830-10 (f); 830-10 (f) Exception No.2; 830-10 (g); 830-10 (h); 830-10 (h) Exception; 830-10 (i); 830-10 (i) (1); 830-10 (i) (2); 830-10 (i) (3); 830-10 (i) (4); 830-10 (i) (4) Exception; 830-11 (a); 830-11 (b); 830-11 (b) Exception No. 1; 830-11 (b) Exception 2; 830-11 (c) Exception; 830-11 Table; 830-11 Table Note 5; 830-30 (a); 830-30 (a) Exception FPN No.1; 830-30 (a) Exception FPN No.2; 830-30 (b) 1.; 830-30 (b) 3. FPN; 830-33; 830-33 FPN; 830-40; 830-40 (a) (3); 830-40 (d); 830-42 (a); 830-42 (b); 830 E. Title.; 830-54; 830-55; 830-58; 830-58 (a) (1) a.; 830-58 (a) (1) b.; 830-58 (a) (1) b. 3.; 830-58 (a) (1) c.; 830-58 (a) (1) c. 3.; 830-58 (a) (1) d.; 830-58 (a) (1) d. Exception No. 1; 830-58 (a) (1) d. Exception No. 2; 830-58 (a) (2); 830-58 (a) (2) Exception No. 1; 830-58 (a) (2) Exception No. 2; 830-58 (d); 830-58 Table FPN.

Telephone to Telecommunications: 517-33 (a) 7.; 800-1 the second "telephone" to become "telecommunications"; 800-50 Exception No. 3 FPN No. 1.

Within figures: 760-61; 800-53; 820-53.

SUBSTANTIATION: Telecommunications is a term that is adopted by ANSI in their related standards to identify those transmissions in the proposed definition. Inclusion of this definition will harmonize this Code with other ANSI approved industry standards. This harmonization will provide a common understanding of the relationship between this safety code and performance standards.
PANEL ACTION: Reject.
PANEL STATEMENT: It is premature to make this universal change. The new NFPA Technical Committee on Telecommunication has not adopted a definition of this term. Refer to CMP-16.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2759)

1- 194 - (100-Temporary Wiring (New)): Reject

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 3 for information.

SUBMITTER: Joseph A. Tedesco, Nat'l Technology Transfer, Inc.
RECOMMENDATION: Add definition as follows:

Temporary Wiring. Approved wiring for power and lighting during a period of construction, remodeling, maintenance, repair, or demolition, and decorative lighting, carnival power and lighting or similar purposes.

SUBSTANTIATION: Extracted text from NFPA 1, 1997, edition, Fire Prevention Code. CMP 3 will review this same proposal. This term should be defined.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition includes wiring and equipment that may be part of the permanent electrical installation. Refer to CMP-3 for action.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2103)

1- 195 - (100-Unclassified Locations (New)): Reject

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 14 for information

SUBMITTER: Kari Barrett, Chemical Manufacturers Assn.
RECOMMENDATION: Add a new definition to read:

Unclassified Locations. Locations which are neither Class I, Division 1; Class I, Division 2, Class I, Zone 0; Class I, Zone 1; Class I, Zone 2; Class II, Division 1; Class II, Division 2; Class III, Division 1; Class III, Division 2, or any combination thereof.

SUBSTANTIATION: The term "Classified" refers to the type of material/hazard potential involved, i.e., Class I, Division 1, Class II, Division 2, etc. Terms such as nonhazardous and unclassified are used in both the NEC, the Uniform Building Code (UBC) and other NFPA documents. The term nonhazardous infers that the area has "no" hazards while the term "unclassified" more clearly correlates with the condition of being reviewed but found not to need classification. This action provides needed correlation with other NFPA documents, such as NFPA 497. Additionally the term "nonhazardous" is used 7 times within various parts of the NEC and in at lest one place in the NEC the meaning of nonhazardous applies to voltages and not classification. A companion proposal has been made to change the term "nonhazardous" to "unclassified" as appropriate elsewhere in the NEC.
PANEL ACTION: Reject.
PANEL STATEMENT: CMP-1 agrees there may be a problem, however, CMP-1 does not believe the definition belongs in Article 100 as the term "unclassified" only relates to Chapter 5. Article 100 does not presently contain the definition of "classified". Refer to CMP-14.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias
COMMENT ON AFFIRMATIVE:
PRICHARD: A definition for "unclassified locations" is needed. CMP-14 has included this definition in Article 500.

(Log #445)

1- 196 - (100-Volatile Flammable Liquid): Accept

SUBMITTER: Technical Correlating Committee National Electrical Code
RECOMMENDATION: Revise the definition of "Volatile Flammable Liquid" to read:

"A flammable liquid having a flash point below 38°C (100°F), or a flammable liquid whose temperature is above its flash point, or a Class II combustible liquid having a vapor pressure not exceeding 276 kPa (40 psia) (~~276 kPa~~) at 38°C (100°F) whose temperature is above its flash point."

SUBSTANTIATION: The change is to facilitate practical application of the numeric value in SI units. This proposed revision is intended to comply with NFPA 1M Manual of Style Section 4.1 with respect to the placement of units and values of measurement, i.e., show SI units as the preferred and inch-pound units immediately following in parenthesis.
PANEL ACTION: Accept.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #362)

1- 197 - (100-Wet Bar (New)): Reject

Note: It was the action of the Technical Correlating Committee that this Proposal be referred to Code-Making Panel 2 for information.

SUBMITTER: Bob K. Middleton, State of Idaho Div. of Building Safety
RECOMMENDATION: Add a definition for wet bar to read as follows:

Wet bar. A bar for mixing drinks (as in a home) that contains a sink with running water.

SUBSTANTIATION: The code needs to define what a wet bar is. As some authorities having jurisdiction are saying that a counter in a utility room is a wet bar - the receptacle has to be ground fault protected. This was not the intent of the panel.
PANEL ACTION: Reject.
PANEL STATEMENT: The term is used only in Article 210 and does not warrant a definition in Article 100. Refer to CMP-2 for information.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #4466)

1- 198 - (100-Wet Bar (New)): Reject

SUBMITTER: David Skeen, Nugent Electric
RECOMMENDATION: To add the definition of a wet bar.
SUBSTANTIATION: None given.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposal does not contain recommended text as required by Section 4-3.3(c) of the Regulations Governing Committee Projects. The proposal does not

contain substantiation as required by Section 4-3.3(d) of the Regulations Governing Committee Projects.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #321)

1- 199 - (100-Wet Location): Reject
SUBMITTER: James F. Pierce, Intertek Testing Services NA Inc.
RECOMMENDATION: Revise as follows:
Location:
Wet Location: Installations underground or in concrete slabs or masonry in direct contact with the earth, and locations subject to saturation with water or other liquids. ~~such as vehicle washing areas, and locations exposed to weather and unprotected.~~
SUBSTANTIATION: A simplified definition is needed that doesn't rely on a list of examples. Architectural designs vary significantly; therefore, designation of a specific area as a wet location is best left to the authority having jurisdiction who would base the decision on the definition and not a list of examples.
PANEL ACTION: Reject.
PANEL STATEMENT: The proposed definition does not improve on the present definition. The panel disagrees that a variable example list of wet locations is not desirable. The present list provides a range of examples to which authorities can compare similar locations that are being considered during inspection procedures.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

(Log #2209)

1- 200 - (100-1, 100-2 Definitions, 100-10, 100-11): Reject
SUBMITTER: Roland L. Comeau, Intermountain Power Service Corp.
RECOMMENDATION: Revise as follows:
100-1. Scope. This article contains only those definitions essential to the proper application of this code...
A. General
100-2. Definitions. Accessible (as applied to wiring methods). Capable of being removed or exposed without damaging the building structure or finish,...
B. Over 600 Volts Nominal.
100-10 Application of Definitions. Whereas the preceding definitions are intended to apply wherever the terms are used throughout this code,...
100-11 Definitions. Electronically Actuated Fuse. An overcurrent protective device that generally consists of a control module that provides current sensing...
SUBSTANTIATION: This is the only article within the NEC that is not divided into sections. The NEC Style Manual 2.1.3 states, "Articles are divided into sections and sometimes into parts." By adding these section division and titles, Article 100 will be consistent with every other article in the code.
PANEL ACTION: Reject.
PANEL STATEMENT: The panel intends to follow the NEC style manual as directed by the Technical Correlating Committee.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias

Note: The sequence no. 1-201 was not used.

ARTICLE 110 — REQUIREMENTS FOR ELECTRICAL INSTALLATIONS

(Log #446)

1- 202 - (110): Accept in Principle
SUBMITTER: Technical Correlating Committee National Electrical Code
RECOMMENDATION: 1. In Section 110-26(a), Exception No. 1, replace "30 in. (762 mm)" with "750 mm (30 in.)".
2. In Section 110-26(a)(2), replace "30 in. (762 mm)" with "750 mm (30 in.)".
3. In Section 110-26(a)(3), replace "6 in. (153 mm)" with "150 mm (6 in.)".
4. In Section 110-26(c) 2nd paragraph, replace "6 ft (1.83 m)" with "1.8 m (6 ft)".
5. In Section 110-26(c) 2nd paragraph, replace "24 in. (610 mm)" with "600 mm (24 in.)".
6. In Section 110-26(c) 2nd paragraph, replace "6 1/2 ft (1.98 m)" with "2.0 m (6 1/2 ft)".
7. In Section 110-26(e) in 2 locations, replace "6 1/2 ft (1.98 m)" with "2.0 m (6 1/2 ft)".
8. In Section 110-26(f)(1)(a), replace "6 ft (1.83 m)" with "1.8 m (6 ft)".
9. In Section 110-27(a)(4), replace "8 ft (2.44 m)" with "2.5 m (8 ft)".
10. In Section 110-31 2nd paragraph, replace "7 ft (2.13 m)" with "2.1 m (7 ft)".
11. In Section 110-31 2nd paragraph, replace "6 ft (1.80 m)" with "1.8 m (6 ft)".
12. In Section 110-31 2nd paragraph, replace "1-ft (305 mm)" with "300 mm (1 ft)".
13. In Section 110-31(c), replace "8 ft (2.44 m)" with "2.5 m (8 ft)".
14. In Section 110-32, replace "6 1/2 ft (1.98 m)" with "2.0 m (6 1/2 ft)".
15. In Section 110-32, replace "3 ft (914 mm)" with "900 mm (3 ft)".
16. In Section 110-33(a), replace "24 in. (610 mm)" with "600 mm (24 in.)".
17. In Section 110-33(a), replace "6 1/2 ft (1.98 m)" with "2.0 m (6 1/2 ft)".
18. In Section 110-33(a)(1), replace "6 ft (1.83 m)" with "1.8 m (6 ft)".
19. In Section 110-34(a), Exception, replace "30 in. (762 mm)" with "750 mm (30 in.)".
20. In Section 110-54(a), replace "1000 ft (305 m)" with "300 m (1000 ft)".

SUBSTANTIATION: The proposed revision is intended to comply with the NFPA No. 1M Manual of Style Section 4.1 with respect to the placement of units and values of measurement, i.e., show SI units as the preferred and inch-pound units immediately following in parenthesis.
PANEL ACTION: Accept in Principle.
Revise Item No. 1 and 5 to reflect a soft conversion. The new conversions are as follows:
Item No. 1 is revised from 750 mm to 762 mm.
Item No. 5 is revised from 600 mm to 610 mm.
PANEL STATEMENT: The panel chose a soft metric conversion because the panel considered these critical to safe work clearances.
NUMBER OF PANEL MEMBERS ELIGIBLE TO VOTE: 13
VOTE ON PANEL ACTION:
AFFIRMATIVE: 12
NOT RETURNED: 1 Macias
