CMP – 15 Task Group 2 Second Meeting Report

November 13, 2017

	PI	PAGE	Action
517.2	1981	8	Resolve
Panel Statement			This material is extracted from NFPA 99-2018, Health Care Facilities Code. Any changes to the material in the National Electrical Code relating to extracted material from NFPA 99 need first to be amended in that document. The panel suggests the submitter of this public input pursue revising NFPA 99 in the next cycle.

	PI	PAGE	RESOLUTION
517.2	269	10	Revise - FR
Suggested Text			**Hospital.** A building or portion thereof used on a 24-hour basis for the medical, psychiatric, obstetrical, or surgical care of four or more inpatients. [***101:*** 3.3.142] **Invasive Procedure.** Any procedure that penetrates the protective surfaces of a patient's body (i.e., skin, mucous membrane, cornea) and that is performed with an aseptic field (procedural site). Not included in this category are placement of peripheral intravenous needles or catheters used to administer fluids and/or medications, gastrointestinal endoscopies (i.e., sigmoidoscopies),insertion of urethral catheters, and other similar procedures. [**99:**3.3.81] **Isolated Power System.** A system comprising an isolating transformer or its equivalent, a line isolation monitor, and its ungrounded circuit conductors. [**99:**3.3.83] **Isolation Transformer.** A transformer of the multiple-winding type, with the primary and secondary windings physically separating(s) to the grounded feeder system that energizes its primary winding(s). [**99:**3.3.84] ~~**Invasive Procedure.** Any procedure that penetrates the protective surfaces of a patient's body (i.e., skin, mucous membrane, cornea) and that is performed with an aseptic field (procedural site). Not included in this category are placement of peripheral intravenous needles or catheters used to administer fluids and/or medications, gastrointestinal endoscopies (i.e., sigmoidoscopies),insertion of urethral catheters, and other similar procedures. [**99:**3.3.81]~~ procedures. [**99:**3.3.81]
Panel Statement			Editorial. All definitions in 517.2 should appear in alphabetical order as per NEC Style Manual 2.2.2. Note to staff: Please check

			that all definitions are in alphabetical order in 517.2

	PI	PAGE	RESOLUTION
517.2	437	12	Resolve
Panel Statement			The terms “medical offices (Dental Offices)” are used in Article 517.

	PI	PAGE	RESOLUTION
517.2	438	13	Resolve
Panel Statement			The term “support space” is used directly in 517. 2. Additionally support space is a subset of the definition for patient care space. Any support spaces used in a patient care area would be included in specific installation requirements of 517, Part B.

	PI	PAGE	RESOLUTION
517.2	1901	14	Revise FR
Suggested Text			**517.2 Definitions.** **The definitions in this section shall apply only within this article.**
Panel Statement			CMP-15 agrees with the task group that this revision will clarify issues arising from the use of definitions in Article 100 and definitions used in Article 517.

	PI	PAGE	RESOLUTION
517.17(B)	2320	42	Resolve
Panel Statement			This PI references high impedance ground systems which are a design element and therefore outside the purview of this document. The panel suggests this may be submitted to NFPA 99, Health Care Facilities Code ELS for consideration.

	PI	PAGE	RESOLUTION
517.17(D)	3437	43	Revise FR
Suggested Text			**(D) Testing.** When equipment ground-fault protection is first installed, each level shall be performance tested to ensure compliance with 517.17(C).This testing shall be conducted by a qualified person(s) using a test process of primary current injection, in accordance with the instruction provided with the equipment. A written record of this testing shall be made and shall be available to the authority having jurisdiction.
Panel Statement			This PI provide clarity by requiring qualified persons perform a test process of primary current injection. This correlates with the testing requirements in 230.95(C).

	PI	PAGE	RESOLUTION
517.19(G)	2402	52	Revise FR
Suggested Text			**(G) Isolated Power System Equipment Grounding.** Where an isolated ungrounded power source is used and limits the first fault current to a low magnitude, the equipment grounding conductor associated with the secondary circuit shall be permitted to be run outside of the enclosure of the power conductors in the same circuit. Informational Note: Although it is permitted to run the equipment grounding conductor outside of the conduit, it is safer to run it with the power conductors to provide better protection in case of a second ground fault.
Panel Statement			The term “grounding conductor” is one that is no longer defined. As part of a Correlating Committee Task Force activity on grounding and bonding in general, this term and its related definition was removed from the NEC during the 2008 NEC cycle. The term had been found to be misapplied in many instances and the definition of “grounding conductor” was determined to be very close to the definition of “grounding electrode conductor” yet, many uses of the term in previous editions of the NEC were found to be more correctly to be either “equipment grounding conductor” and has been corrected in with this panel action.

	PI	PAGE	RESOLUTION
517.19(H)	2403	53	Revise FR
Suggested Text			**(H) Special-Purpose Receptacle Grounding.** The equipment grounding conductor for special-purpose receptacles, such as the operation of mobile X-ray equipment, shall be extended to the reference grounding points of branch circuits for all locations likely to be served from such receptacles. Where such a circuit is served from an isolated ungrounded system, the

			equipment grounding conductor shall not be required to be run with the power conductors; however, the equipment grounding terminal of the special-purpose receptacle shall be connected to the reference grounding point.
Panel Statement			The term “grounding conductor” is one that is no longer defined. As part of a Correlating Committee Task Force activity on grounding and bonding in general, this term and its related definition was removed from the NEC during the 2008 NEC cycle. The term had been found to be misapplied in many instances and the definition of “grounding conductor” was determined to be very close to the definition of “grounding electrode conductor” yet, many uses of the term in previous editions of the NEC were found to be more correctly to be either “equipment grounding conductor” and has been corrected in with this panel action.

Sweeper Discussion Group

Section	PI	Page	Action
517.2	2099	9	Resolve
Panel Statement			The revision from “offices” to “facilities” may cause confusion to users of the code because facilities is too broad a term for this particular application. “Offices” is used in both the NEC and in NFPA 99 and is applicable to 517, and should remain to assure correlation between the two documents.

Section	PI	Page	Action
517.2	2098	11	Revise - FR
Suggested Text			Medical/Dental Office <<No change to definition>>
Panel Statement			This public input proposes a revision from “offices” to “facilities”. This may cause confusion to users of the code because facilities is too broad a term for this particular application. “Offices” is used in both the NEC and in NFPA 99 and is applicable to 517, and should remain to assure correlation between the two documents. Furthermore, the panel notes that the definition header does not correlate with NFPA 99-2018 and makes this first revision to bring it into correlation.

Section	PI	PAGE	RESOLUTION
517.10(B)	1694	29	Revise - FR
Suggested Text			Part II shall not apply to the following: (1) Business offices, corridors, waiting rooms, and the like in clinics, medical and dental offices, and outpatient facilities (2) Areas of nursing homes and limited care facilities wired in accordance with Chapters 1 through 4 of this *Code* where these areas are used exclusively as patient sleeping rooms Informational Note: See NFPA *101* - 2015, *Life Safety Code* ® . (3) Areas used exclusively for any of the following purposes: a. Intramuscular Injections (Immunizations) b. psychiatry and Psychotherapy c. Alternative Medicine d. Optometry
Panel Statement			The panel sees value in further defining the spaces where Part II shall not apply. The panel notes that “type B occupancies” are not defined in the Code, and acupuncture is a form of alternative medicine.

Section	PI	PAGE	RESOLUTION
517.13(A)	1068	32	
Panel Statement			

Section	PI	PAGE	RESOLUTION
517.13	2010	33	Revise - FR
Suggested Text			**517.13 Equipment Grounding Conductor for ~~of~~ Receptacles and Equipment in Patient Care Spaces.** Wiring in patient care spaces shall comply with 517.13(A) and (B). **(A) Wiring Methods.** All branch circuits serving patient care spaces shall be provided with an effective ground-fault current path by installation in a metal raceway system or a cable having

			a metallic armor or sheath assembly. The metal raceway system, metallic cable armor, or sheath assembly shall itself qualify as an equipment grounding conductor in accordance with 250.118. **(B) Insulated Equipment Grounding Conductors and Insulated Equipment Bonding Jumpers.** **(1) General.** The following shall be directly connected to an insulated copper equipment grounding conductor that is clearly identified along its entire length by green insulation and installed with the branch circuit conductors in the wiring methods as provided in 517.13(A): (1) The grounding terminals of all receptacles other than isolated ground receptacles (2) Metal outlet boxes, metal device boxes, or metal enclosures (3) All non–current-carrying conductive surfaces of fixed electrical equipment likely to become energized that are subject to personal contact, operating at over 100 volts (4) *Metal faceplates shall be connected to the equipment grounding conductor by means of a metal mounting screw(s) securing the faceplate to ~~a~~ metal yoke or strap of a receptacle or metal outlet box.* *Exception No. 1: For other than isolated ground receptacles, an insulated equipment bonding jumper that directly connects to the equipment grounding conductor is permitted to connect the box and receptacle(s) to the equipment grounding conductor. Isolated ground receptacles shall be connected in accordance with 517.16.* *~~Exception No. 2: Metal faceplates shall be permitted to be connected to the equipment grounding conductor by means of a metal mounting screw(s) securing the faceplate to a grounded metal yoke or strap of a receptacle or metal outlet box or grounded wiring device~~.* *Exception No. 2: Luminaires more than 2.3 m (7½ ft) above the floor and switches located outside of the patient care vicinity shall be permitted to be connected to an equipment grounding return path complying with 517.13(A) or (B).*
Panel Statement			The revised title clarifies this section is addressing the equipment grounding conductor installation as outlined in 250.118. Revising Exception No. 2 and moving it to a subsection of 517.13 adds clarity for users and coordinates with 406.6.

Section	PI	PAGE	RESOLUTION
517.17(A)	3773	41	FR
Suggested Text			**517.17 Ground-Fault Protection.** **(A) Applicability.** The requirements of 517.17 shall apply to building or portions of buildings containing Health care facilities ~~hospitals, and other buildings (including multiple-occupancy buildings)~~ with critical care (Category 1) spaces or utilizing electrical life-support equipment, and buildings that provide the required essential utilities or services for the operation of critical care (Category 1) spaces or electrical life-support equipment.
Panel			The application of codes and standards to health care facilities

Statement			should be based on the risk considerations listed (critical care (category 1) rather than the occupancy of the building. The panel notes, with the addition of “building or portions of building containing…”, that these risk categories can be found in any structure supporting health care operations.