

PIKES PEAK REGIONAL BUILDING DEPARTMENT

Highlights of the 2005 National Electrical Code

This information does not address all code changes in the 2005 NEC, and does not represent the actual code provisions. Consult the 2005 NEC which will in its entirety be enforced by the state of Colorado, effective July 1, 2005.

REFERENCE	NEW CODE REQUIREMENTS
100.26(C)(2)	Equipment that is more than 1200A, regardless of size, requires proper exiting, one at each end with panic hardware.
110 Part V	Manhole information is now in Article 110.
200.6(D)(5), 210.5(C)	Neutrals and ungrounded conductors that are of different systems in the same facility, must be individually identified (color coded) and have plaques placed at each panel board that are labeled with the identification method.
210.8(A)(7)	GFCI protection is required for all outlets within 6' of laundry, utility and wet bar sinks.
210.8(B)(2)	Kitchen definition added for clarity.
210.8(B)(4)	GFCI protection is required for all outdoor commercial receptacles that are accessible to the public.
210.8(B)(5)	GFCI protection is required for all outlets that are installed for AC system maintenance; this includes commercial, residential and others.
210.12(B)	AFCI protection exception allows an AFCI receptacle device to be used within 6 feet of circuit origination; this is required if an AFCI breaker is not available, (FPE panel boards).
210.12(B)	Effective Jan. 1, 2008, AFCI protection must be a combination type.
300.22(B)	Liquid tight conduit is not permitted in return plenums in any length.
Table 300.50	New table for underground installations over 600V.
310.10	Conductors on roof are derated for temperature anticipated in the conduit; the temperature inside the conduit can exceed 30° above ambient temperature.
312.2(A)	Conduits entering enclosures that are above energized parts, (even on the side), require sealing type connectors or locknuts.
314.16(B)(1)	Conductors pulled straight through boxes over twice the normal conductor length (12 inches) are counted as two (2) conductors; previously it was one.
314.20	1/4 inch is the maximum setback for boxes, extensions, etc. in noncombustible material. All roughed-in boxes that do not comply with this rule require box extenders (arc shields).
314.21	Plaster, sheetrock or other wall materials that are cut with a more than 1/8 inch gap between the wall and the box must be repaired.
314.23	Screws cannot be run through the inside of a box for support.
320.30, 330.30, 334.30 & 356.30	Holes through studs are considered support for cables which are secured within 12 inches of a box. AC, MC, NMC run across the top of joists must be secured (stapled, strapped) to comply with code. Fault currents will cause a whipping action in the cables that can damage the wire unless properly secured across joist tops.
334.15(C)	Where cables enter conduits for protection, a plastic bushing is required on the end of the conduit.
340.112	UF cable used as NMC requires conductors that are rated 90°C.
342.30(B)	Rigid conduit extended 20 feet vertically requires a support at both top and bottom of the conduit other than the box support.
348.30(A)	Flexible conduit supports have been modified when installed for flexibility, refer to table.
366.58(A), 376.56(B)	Conductors in gutters require terminating space in Section 312.6(B), and gutter must be sized according to Section 314.28 for angles and straight pulls.

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372.17	Conductors installed in under-floor raceways are to be sized for derating per Table 310.15(B)(2). Requires a minimum #10 in most circumstances for 20A circuits.
404.9(B)	GFCI protected metal faceplates and fixtures allowed on non-grounded systems.
422.21(B)	Breaker lockout devices installed for hard-wired appliances must be permanent. Snap-in devices for panel covers are not acceptable.
422.51	GFCI protection is required for all vending machines.
430 Part X	New section for adjustable speed drives.
506	New article about zone classifications for combustible dusts and fibers.
513.12	GFCI protection is required for all receptacles in aircraft hangers.
514.13	Gasoline dispenser disconnecting devices require a means of being locked in the open position.
517.13	Redundant grounding method of wiring is required for all branch circuits in patient care areas, including light fixtures.
527	Temporary wiring is now Article 590.
547.5(G)	GFCI protection is required for all receptacles in dirt confinement areas in agricultural buildings.
550.13(F)(1)	Receptacle outlets are not allowed in tub areas in mobile homes.
551.51(B)	Switches cannot be installed in shower or tub wet locations unless part of a listed assembly.
551.71	20% of new RV sites require a 50A receptacle (120/240)
553.4	Floating building must have services located on earth adjacent to building, not on the floating building.
555.22	Boat repair facilities must comply with Article 511 (repair garages).
590.4(B)	NMC is allowed for temporary wiring in all types of construction, including type I and II.
600.1	All outline lighting,(window outlines, signs, etc.), must comply with Article 600 provisions.
600.12	New article regarding field installed wiring for signs.
605.6, 605.7	Multi-ware branch circuits to furniture partitions require a single handle on the breaker for disconnecting means. For example: 3 pole breaker is required for 3 phase feed to partition.
625.2	Neighborhood electric vehicles are covered in Article 625.
680.58	GFCI protection is required for all outlets within 20' of all indoor and outdoor fountains.