

(vi) A red “Warning” label shall be mounted on or adjacent to the service equipment. The label shall state:

“Warning—do not provide electrical power until the grounding electrode is installed and connected (see installation instructions).”

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 52 FR 4589, Feb. 12, 1987; 58 FR 55019, Oct. 25, 1993]

EFFECTIVE DATE NOTE: At 70 FR 72051, Nov. 30, 2005, § 3280.803 was amended by redesignating the receptacle/cap illustration and caption that follows paragraph (g) to the end of paragraph (f), and revising the redesignated caption following the redesignated illustration, paragraph (k)(1), the introductory text of paragraph (k)(3), and paragraphs (k)(3)(ii) and (k)(3)(iii), effective May 30, 2006. For the convenience of the user the revised text follows:

§ 3280.803 Power supply.

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(f) * * *

50-ampere 125/250 volt receptacle and attachment-plug-cap configurations, 3 pole, 4-wire grounding types used for manufactured home supply cords and manufactured home parks. Complete details of the 50-ampere cap and receptacle can be found in the American National Standard Dimensions of Caps, Plugs, and Receptacles, Grounding Type (ANSI/NEMA—WD-6-1997—Wiring Devices—Dimensional Specifications).

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(k) * * *

(1) One mast weatherhead installation installed in accordance with Article 230 of the National Electrical Code, NFPA No. 70-2005, containing four continuous insulated, color-coded, feeder conductors, one of which shall be an equipment grounding conductor; or

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(3) Service equipment installed on the manufactured home in accordance with Article 230 of the National Electrical Code, NFPA No. 70-2005, and the following requirements:

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(ii) Exterior equipment, or the enclosure in which it is installed must be weatherproof and installed in accordance with Article 312.2(A) of the National Electrical Code, NFPA No. 70-2005, and conductors must be suitable for use in wet locations;

(iii) Each neutral conductor must be connected to the system grounding conductor on

the supply side of the main disconnect in accordance with Articles 250.24, 250.26, and 250.28 of the National Electrical Code, NFPA No. 70-2005.

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§ 3280.804 Disconnecting means and branch-circuit protective equipment.

(a) The branch-circuit equipment shall be permitted to be combined with the disconnecting means as a single assembly. Such a combination shall be permitted to be designated as a distribution panelboard. If a fused distribution panelboard is used, the maximum fuse size of the mains shall be plainly marked with lettering at least ¼-inch high and visible when fuses are changed. See section 110-22 of the National Electrical Code (NFPA No. 70-1993) concerning identification of each disconnecting means and each service, feeder, or branch circuit at the point where it originated and the type marking needed.

(b) Plug fuses and fuseholders shall be tamper-resistant, Type “S,” enclosed in dead-front fuse panelboards. Electrical distribution panels containing circuit breakers shall also be dead-front type.

(c) Disconnecting means. A single disconnecting means shall be provided in each manufactured home consisting of a circuit breaker, or a switch and fuses and their accessories installed in a readily accessible location near the point of entrance of the supply cord or conductors into the manufactured home. The main circuit breakers or fuses shall be plainly marked “Main.” This equipment shall contain a solderless type of grounding connector or bar for the purposes of grounding with sufficient terminals for all grounding conductors. The neutral bar termination of the grounded circuit conductors shall be insulated.

(d) The disconnecting equipment shall have a rating suitable for the connected load. The distribution equipment, either circuit breaker or fused type, shall be located a minimum of 24 inches from the bottom of such equipment to the floor level of the manufactured home.

(e) A distribution panelboard employing a main circuit breaker shall be

rated 50 amperes and employ a 2-pole circuit breaker rated 40 amperes for a 40-ampere supply cord, or 50 amperes for a 50-ampere supply cord. A distribution panelboard employing a disconnect switch and fuses shall be rated 60 amperes and shall employ a single 2-pole, 60-ampere fuseholder with 40- or 50-ampere main fuses for 40- or 50-ampere supply cords, respectively. The outside of the distribution panelboard shall be plainly marked with the fuse size.

(f) The distribution panelboard shall not be located in a bathroom, or in any other inaccessible location, but shall be permitted just inside a closet entry if the location is such that a clear space of 6 inches to easily ignitable materials is maintained in front of the distribution panelboard, and the distribution panelboard door can be extended to its full open position (at least 90 degrees). A clear working space at least 30 inches wide and 30 inches in front of the distribution panelboard shall be provided. This space shall extend from floor to the top of the distribution panelboard.

(g) Branch-circuit distribution equipment shall be installed in each manufactured home and shall include overcurrent protection for each branch circuit consisting of either circuit breakers or fuses.

(1) The branch circuit overcurrent devices shall be rated:

- (i) Not more than the circuit conductors; and
- (ii) Not more than 150 percent of the rating of a single appliance rated 13.3 amperes or more which is supplied by an individual branch circuit; but
- (iii) Not more than the fuse size marked on the air conditioner or other motor-operated appliance.

(h) A 15-ampere multiple receptacle shall be acceptable when connected to a 20-ampere laundry circuit.

(i) When circuit breakers are provided for branch-circuit protection 240 circuits shall be protected by 2-pole common or companion trip, or handle-tied paired circuit breakers.

(j) A 3 inch by 1-3/4 inch minimum size tag made of etched, metal-stamped or embossed brass, stainless steel, anodized or alclad aluminum not less than 0.020 inch thick, or other approval

material (e.g., 0.005 inch plastic laminates) shall be permanently affixed on the outside adjacent to the feeder assembly entrance and shall read: This connection for 120/240 Volt, 3-Pole, 4-Wire, 60 Hertz, _____ Ampere Supply. The correct ampere rating shall be marked on the blank space.

(k) When a home is provided with installed service equipment, a single disconnecting means for disconnecting the branch circuit conductors from the service entrance conductors shall be provided in accordance with Part F of Article 230 of the National Electrical Code, NFPA No. 70–1993. The disconnecting means shall be listed for use as service equipment. The disconnecting means may be combined with the disconnect required by § 3280.804(c). The disconnecting means shall be rated not more than the ampere supply or service capacity indicated on the tag required by paragraph (l) of this section.

(l) When a home is provided with installed service equipment, the electrical nameplate required by § 3280.804(j) shall read: “This connection for 120/240 volt, 3 pole, 3 wire, 60 Hertz, _____ Ampere Supply.” The correct ampere rating shall be marked in the blank space.

[40 FR 58752, Dec. 18, 1975, as amended at 42 FR 961, Jan. 4, 1977. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 52 FR 4589, Feb. 12, 1987; 58 FR 55019, Oct. 25, 1993]

EFFECTIVE DATE NOTE: At 70 FR 72051, Nov. 30, 2005, § 3280.804 was amended by revising paragraph (a) and the first sentence of paragraph (k), effective May 30, 2006. For the convenience of the user the revised text follows:

§ 3280.804 Disconnecting means and branch-circuit protective equipment.

(a) The branch-circuit equipment is permitted to be combined with the disconnecting means as a single assembly. Such a combination is permitted to be designated as a distribution panelboard. If a fused distribution panelboard is used, the maximum fuse size of the mains must be plainly marked with lettering at least 1/4-inch high and that is visible when fuses are changed. (See Article 110.22 of NFPA 70–2005, National Electrical Code, concerning identification of each disconnecting means and each service, feeder, or branch circuit at the point where it originated and the type marking needed.)

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(k) When a home is provided with installed service equipment, a single disconnecting means for disconnecting the branch circuit conductors from the service entrance conductors must be provided in accordance with Article 230, Part VI of the National Electrical Code, NFPA No. 70-2005. * * *

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§ 3280.805 Branch circuits required.

(a) The number of branch circuits required shall be determined in accordance with the following:

(1) Lighting, based on 3 volt-amperes per square foot times outside dimensions of the manufactured home (coupler excluded) divided by 120 volts times amperes to determine number of 15 or 20 ampere lighting area circuits. e.g. $[3 \times \text{length} \times \text{width} - [120 \times (15 \text{ or } 20)]] = \text{number of 15 or 20 ampere circuits.}$

(2) *Small appliances.* For the small appliance load in kitchen, pantry dining room and breakfast rooms of manufactured homes, two or more 20-ampere appliance branch circuits, in addition to the branch circuit specified in § 3280.805(a)(1), shall be provided for all receptacle outlets in these rooms, and such circuits shall have no other outlets. Receptacle outlets supplied by at least two appliance receptacle branch circuits shall be installed in the kitchen.

(3) *General appliances (Including furnace, water heater, range, and central or room air conditioner, etc.).* There shall be one or more circuits of adequate rating in accordance with the following:

(i) Ampere rating of fixed appliances not over 50 percent of circuit rating if lighting outlets (receptacles, other than kitchen, dining area, and laundry, considered as lighting outlets) are on same circuit;

(ii) For fixed appliances on a circuit without lighting outlets, the sum of rated amperes shall not exceed the branch-circuit rating. Motor loads or other continuous duty loads shall not exceed 80 percent of the branch circuit rating.

(iii) The rating of a single cord and plug connected appliances on a circuit having no other outlets, shall not exceed 80 percent of the circuit rating.

(iv) The rating of range branch circuit shall be based on the range demand as specified or ranges in

§ 3280.811, Item B(5) of Method 1. For central air conditioning, see Article 440 of the National Electrical Code (NFPA No. 70-1993).

(v) Where a laundry area is provided, a 20 ampere branch circuit shall be provided to supply laundry receptacle outlets. This circuit shall have no other outlets. See § 3280.806(a)(7).

(b) [Reserved]

[40 FR 58752, Dec. 18, 1975. Redesignated at 44 FR 20679, Apr. 6, 1979, as amended at 58 FR 55020, Oct. 25, 1993]

EFFECTIVE DATE NOTE: At 70 FR 72051, Nov. 30, 2005, § 3280.805 was amended by revising paragraph (a)(3)(iv), effective May 30, 2006. For the convenience of the user the revised text follows:

§ 3280.805 Branch circuits required.

(a) * * *

(3) * * *

(iv) The rating of the range branch circuit is based on the range demand as specified for ranges in § 3280.811(a)(5). For central air conditioning, see Article 440 of the National Electrical Code, NFPA No. 70-2005.

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§ 3280.806 Receptacle outlets.

(a) All receptacle outlets shall be:

(1) Of grounding type;

(2) Installed according to section 210-7 of the National Electrical Code (NFPA No. 70-1993).

(3) Except when supplying specific appliances, be parallel-blade, 15-ampere, 125-volt, either single or duplex.

(b) All 120 volt single phase, 15 and 20 ampere receptacle outlets, including receptacles in light fixtures, installed outdoors, in compartments accessible from the outdoors, in bathrooms, and within 6 feet of a kitchen sink to serve counter top surfaces shall have ground-fault circuit protection for personnel. Feeders supplying branch circuits may be protected by a ground-fault circuit-interrupter in lieu of the provision for such interrupters specified above. Receptacles dedicated for washer and dryers, also located in a bathroom, are exempt from this requirement.

(c) There shall be an outlet of the grounding type for each cord-connected fixed appliance installed.

(d) Receptacle outlets required. Except in the bath and hall areas, receptacle outlets shall be installed at wall