- (ii) ¼-inch or thicker unfinished plywood with phenolic or urea glue;
- (iii) Unfinished dimension lumber (1inch or thicker nominal boards);
- (iv) %-inch or thicker unfinished particleboard with phenolic or urea hinder:
- (v) Natural gum-varnished or latexor alkyd-painted:
  - (A) <sup>1</sup>/<sub>4</sub>-inch or thicker plywood, or
- (B) %-inch or thicker particleboard, or
- (C) 1-inch or thicker nominal board;
- (vi) 5/16-inch gypsum board with decorative wallpaper; and
- (vii) ¼-inch or thicker unfinished hardboard,
  - (2) Flame-spread rating-25 to 200,
  - (i) Painted metal;
  - (ii) Mineral-base acoustic tile:
- (iii) 5/16-inch or thicker unfinished gypsum wallboard (both latex- or alkyd-painted); and
  - (iv) Ceramic tile.

(The above-listed material applications do not waive the requirements of §3280.203(c) or §3280.204 of this subpart.)

- (b) Flame-spread rating requirements.
- (1) The interior finish of all walls, columns, and partitions shall not have a flame spread rating exceeding 200 except as otherwise specified herein.
- (2) Ceiling interior finish shall not have a flame spread rating exceeding
- (3) Walls adjacent to or enclosing a furnace or water heater and ceilings above them shall have an interior finish with a flame spread rating not exceeding 25. Sealants and other trim materials 2 inches or less in width used to finish adjacent surfaces within these spaces are exempt from this provision provided that all joints are completely supported by framing members or by materials having a flame spread rating not exceeding 25.
- (4) Exposed interior finishes adjacent to the cooking range shall have a flame spread rating not exceeding 50, except that backsplashes not exceeding 6 inches in height are exempted. Adjacent surfaces are the exposed vertical surfaces between the range top height and the overhead cabinets and/or ceiling and within 6 horizontal inches of the cooking range. (Refer also to §3280.204(a), Kitchen Cabinet Protec-

- tion.) Sealants and other trim materials 2 inches or less in width used to finish adjacent surfaces are exempt from this provision provided that all joints are completely supported by a framing member.
- (5) Kitchen cabinet doors, countertops, backsplashes, exposed bottoms, and end panels shall have a flame spread rating not to exceed 200. Cabinet rails, stiles, mullions, and top strips are exempted.
- (6) Finish surfaces of plastic bathtubs, shower units, and tub or shower doors shall not exceed a flame spread rating of 200.
  - (c) Fire protective requirements.
- (1) Materials used to surface the following areas shall be of limited combustible material (e.g., 5/16-inch gypsum board, etc.):
- (i) The exposed wall adjacent to the cooking range (see § 3280.203(b)(4));
- (ii) Exposed bottoms and sides of kitchen cabinets as required by § 3280.204;
- (iii) Interior walls and ceilings enclosing furnace and/or water heater spaces; and
- (iv) Combustible doors which provide interior or exterior access to furnace and/or water heater spaces. The surface may be interrupted for louvers ventilating the enclosure. However, the louvers shall not be constructed of a material of greater combustibility than the door itself (e.g., plastic louvers on a wooden door).
- (2) No burner of a surface cooking unit shall be closer than 12 horizontal inches to a window or an exterior door with glazing.

 $[49\ FR\ 32008,\ Aug.\ 9,\ 1984,\ as\ amended\ at\ 58\ FR\ 55005,\ Oct.\ 25,\ 1993]$ 

## § 3280.204 Kitchen cabinet protection.

(a) The bottom and sides of combustible kitchen cabinets over cooking ranges to a horizontal distance of 6 inches from the outside edge of the cooking range shall be protected with at least 5/16-inch thick gypsum board or equivalent limited combustible material. One-inch nominal framing members and trim are exempted from this requirement. The cabinet area over the cooking range or cooktops shall be protected by a metal hood (26-gauge sheet metal, or .017 stainless steel, or .024

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aluminum, or .020 copper) with not less than a 3-inch eyebrow projecting horizontally from the front cabinet face. The  $\frac{5}{16}$ -inch thick gypsum board or equivalent material which is above the top of the hood may be supported by the hood. A %-inch enclosed air space shall be provided between the bottom surface of the cabinet and the gypsum board or equivalent material. The hood shall be at least as wide as the cooking range.

(b) The 3-inch metal eyebrow required by paragraph (a) of this section will project from the front and rear cabinet faces when there is no adjacent surface behind the range, or the 5/16-inch thick gypsum board or equivalent material shall be extended to cover all exposed rear surfaces of the cabinet.

(c) The metal hood required by paragraphs (a) and (b) of this section can be omitted when an oven of equivalent metal protection is installed between the cabinet and the range and all exposed cabinet surfaces are protected as described in paragraph (a) of this section.

(d) When a manufactured home is designed for the future installation of a cooking range, the metal hood and cabinet protection required by paragraph (a) of this section and the wall-surfacing protection behind the range required by §3280.203 shall be installed in the factory.

(e) Vertical clearance above cooking top. Ranges shall have a vertical clearance above the cooking top of not less than 24 inches to the bottom of combustible cabinets.

## § 3280.205 Carpeting.

Carpeting shall not be used in a space or compartment designed to contain only a furnace and/or water heater. Carpeting may be used in other areas where a furnace or water heater is installed, provided that it is not located under the furnace or water heater.

#### § 3280.206 Firestopping.

(a) Firestopping of at least 1-inch nominal lumber,  $\frac{5}{16}$ -inch thick gypsum board, or the equivalent, shall be provided to cut off concealed draft openings between walls and partitions, including furred spaces, and the roof or floors, so as to retard vertical move-

ment of fire. In particular, such concealed spaces must be constructed so that floor-to-ceiling concealed spaces on one floor do not communicate with any concealed space on another floor, any concealed spaces in the floor, or any concealed space in the roof cavity. A barrier must be installed to prevent communication between adjacent concealed spaces.

(1) Where the barrier is vertical, it must be made of exterior or interior covering(s) equivalent to that used on the nearest exposed wall surface; and

(2) In all other cases, the barrier must be made of 1-inch nominal lumber, 5/16-inch thick gypsum board, or the equivalent.

(b) A space does not lose its character as a concealed draft opening if it is filled with insulation or other material or if it is blocked by a barrier other than as required by paragraph (a) of this section.

(c) All openings for pipes and vents and other penetrations in walls, floors, and ceilings of furnace and water heater spaces shall be tight-fitted or firestopped. Pipes, vents, and other penetrations are tight-fitted when they cannot be moved freely in the opening.

# § 3280.207 Requirements for foam plastic thermal insulating materials.

- (a) *General.* Foam plastic thermal insulating materials shall not be used within the cavity of walls (not including doors) or ceilings or be exposed to the interior of the home unless:
- (1) The foam plastic insulating material is protected by an interior finish of 5/16-inch thick gypsum board or equivalent material for all cavities where the material is to be installed; or
- (2) The foam plastic is used as a sheathing or siding backerboard, and it:
- (i) Has a flame spread rating of 75 or less and a smoke-developed rating of 450 or less (not including outer covering of sheathing);

(ii) Does not exceed %-inch in thickness; and

(iii) Is separated from the interior of the manufactured home by a minimum of 2 inches of mineral fiber insulation or an equivalent thermal barrier; or

(3) The foam plastic insulating material has been previously accepted by