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(B) The thickness of the panels is changed so that the panels are thinner; or  
(C) The grooving pattern on the panels is changed so that the grooves are deeper or closer together.  
(ii) In the case of particleboard:  
(A) The resin formulation is changed so that the formaldehyde-to-urea ratio is increased;  
(B) The amount of formaldehyde resin used is increased; or  
(C) The press time is decreased.  
(iii) In the case of plywood or particleboard:  
(A) The finishing or top coat is changed and the new finishing or top coat has a greater formaldehyde content; or  
(B) The amount of finishing or top coat used on the panels is increased, provided that such finishing or top coat contains formaldehyde.  
(4) The testing laboratory shall periodically visit the plant to monitor quality control procedures to assure that all certified panels meet the standard.  
(5) To maintain its certification, plywood or particleboard must be tested by the air chamber test specified in § 3280.406 whenever one of the following events occurs:  
(i) In the case of particleboard, the resin formulation is changed so that the formaldehyde-to-urea ratio is increased; or  
(ii) In the case of particleboard or plywood, the finishing or top coat is changed and the new finishing or top coat contains formaldehyde; or  
(iii) In the case of particleboard or plywood, the testing laboratory determines that an air chamber test is necessary to assure that panels comply with paragraph (a) of this section.  
(6) In the event that an air chamber test measures levels of formaldehyde from plywood or particleboard in excess of those permitted under paragraph (a) of this section, then the tested product’s certification immediately lapses as of the date of production of the tested panels. No panel produced on the same date as the tested panels or on any day thereafter may be used or certified for use in manufactured homes.  
(i) Provided, however, that a new product certification may be obtained by testing randomly selected panels which were produced on any day following the date of production of the tested panels. If such panels pass the air chamber test specified in § 3280.406, then the plywood or particleboard produced on that day and subsequent days may be used and certified for use in manufactured homes.  
(ii) Provided further, that plywood or particleboard produced on the same day as the tested panels, and panels produced on subsequent days, if not certified pursuant to paragraph (b)(4)(i) of this section, may be used in manufactured homes only under the following circumstances:  
(A) Each panel is treated with a scavenger, sealant, or other means of reducing formaldehyde emissions which does not adversely affect the structural quality of the product; and  
(B) Panels randomly selected from the treated panels are tested by and pass the air chamber test specified in § 3280.406.  
(c) Panel identification. Each plywood and particleboard panel to be installed in manufactured homes which is bonded or coated with a resin system containing formaldehyde, other than an exclusively phenol-formaldehyde resin system, shall be stamped or labeled so as to identify the product manufacturer, date of production and/or lot number, and the testing laboratory certifying compliance with this section.  
(d) Treatment after certification. If certified plywood or particleboard subsequently is treated with paint, varnish, or any other substance containing formaldehyde, then the certification is no longer valid. In such a case, each stamp or label placed on the panels pursuant to paragraph (c) of this section must be obliterated. In addition, the treated panels may be recertified and reidentified in accordance with paragraphs (b) and (c) of this section.  
[49 FR 32011, Aug. 9, 1984]

§ 3280.309  Health Notice on formaldehyde emissions.  
(a) Each manufactured home shall have a Health Notice on formaldehyde emissions prominently displayed in a
temporary manner in the kitchen (i.e.,
countertop or exposed cabinet face).
The Notice shall read as follows:

IMPORTANT HEALTH NOTICE

Some of the building materials used in this
home emit formaldehyde. Eye, nose, and
throat irritation, headache, nausea, and a
variety of asthma-like symptoms, including
shortness of breath, have been reported as a
result of formaldehyde exposure. Elderly per-
sons and young children, as well as anyone
with a history of asthma, allergies, or lung
problems, may be at greater risk. Research
is continuing on the possible long-term ef-
fects of exposure to formaldehyde.

Reduced ventilation resulting from energy
efficiency standards may allow formaldehyde
and other contaminants to accumulate in
the indoor air. Additional ventilation to di-
lute the indoor air may be obtained from a
passive or mechanical ventilation system of-
fered by the manufacturer. Consult your
dealer for information about the ventilation
options offered with this home.

High indoor temperatures and humidity
raise formaldehyde levels. When a home is to
be located in areas subject to extreme sum-
mer temperatures, an air-conditioning sys-
tem can be used to control indoor tempera-
ture levels. Check the comfort cooling cer-
tificate to determine if this home has been
equipped or designed for the installation of
an air-conditioning system.

If you have any questions regarding the
health effects of formaldehyde, consult your
doctor or local health department.

(b) The Notice shall be legible and
typed using letters at least 1⁄4 inch in
size. The title shall be typed using let-
ters at least ¾ inch in size.

(c) The Notice shall not be removed
by any party until the entire sales
transaction has been completed (refer
to part 3282—Manufactured Home Pro-
cedural and Enforcement Regulations
for provisions regarding a sales trans-
action).

(d) A copy of the Notice shall be in-
cluded in the Consumer Manual (refer
to part 3283—Manufactured Home Con-
sumer Manual Requirements).

[49 FR 32012, Aug. 9, 1984, as amended at 54
FR 46049, Nov. 1, 1989; 58 FR 55007, Oct. 25,
1993]

Subpart E—Testing

§ 3280.401 Structural load tests.

Every structural assembly tested
shall be capable of meeting the Proof
Load Test or the Ultimate Load Test
as follows:

(a) Proof load tests. Every structural
assembly tested must be capable of sus-
taining its dead load plus superimposed
live loads equal to 1.75 times the re-
quired live loads for a period of 12
hours without failure. Tests must be
conducted with loads applied and de-
flections recorded in ¼ design live load
increments at 10-minute intervals until
1.25 times design live load plus dead
load has been reached. Additional load
shall then be applied continuously
until 1.75 times design live load plus
dead load has been reached. Assembly
failure shall be considered as design
live load deflection (or residual deflec-
tion measured 12 hours after live load
removal) that is greater than the lim-
its set in §3280.305(d), rupture, fracture,
or excessive yielding. Design live load
deflection criteria do not apply when
the structural assembly being evalu-
ated does not include structural fram-
ing members. An assembly to be tested
shall be of the minimum quality of ma-
terials and workmanship of the produc-
tion. Each test assembly, component,
or subassembly shall be identified as to
type and quality or grade of material.
All assemblies, components, or sub-
assemblies qualifying under this test
shall be subject to a continuing quali-
ification testing program acceptable to
HUD.

(b) Ultimate load tests. Ultimate load
tests must be performed on a minimum
of three assemblies or components to
generally evaluate the structural de-
sign. Every structural assembly or
component tested must be capable of
sustaining its total dead load plus the
design live load increased by a factor of
safety of at least 2.5. A factor of safety
greater than 2.5 shall be used when re-
quired by an applicable reference
standard in §3280.304(b)(1). Tests shall
be conducted with loads applied and de-
flections recorded in 1/4 design live load
increments at 10-minute intervals
until 1.25 times design live load plus
dead load has been reached. Additional
loading shall then be applied continu-
ously until failure occurs, or the total
of the factor of safety times the design
live load plus the dead load is reached.
Assembly failure shall be considered as
design live load deflection greater than