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August 14, 2001

Dale Hardy Roberts, Secretary  
Missouri Public Service Commission  
P.O. Box 360  
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MX-2000-442, MX-2000-443,  
MX-2000-444, MX-2000-446-MX-2000-449  
MX-2001-557

**Re: The Missouri Manufactured Housing Association's Comments on the following proposed rules and amendments to rules concerning modular units and manufactured homes: 4 CSR 240-123.040, 4 CSR 240-123.065, 4 CSR 240-123.070, 4 CSR 240-123.080, and 4 CSR 240-124.040.**

Dear Mr. Roberts:

The Missouri Manufactured Housing Association has the following comments concerning the above-referenced proposed rules and amendments to rules.

1. **4 CSR 240-123.040 (5)** - Section (5) of this rule requires the director to approve changes in a manufacturing program. The rule as written requires the director to promptly provide written approval of such changes. The rule does not provide a time period within which the director is to act. Therefore, the Association proposes to modify subsection (5) as follows: The approval of a manufacturing program shall lapse when any changes, not approved in writing by the director, are made in any procedure, part of component for which the code includes a requirement. **The director shall provide written approval of such changes within ten (10) days of the director's receipt of a written description of the changes which is sufficient to demonstrate that the changes comply with the code.**

2. **4 CSR 240-123.040 (7) E** - This section requires the director to withdraw approval of a manufacturing program if the director finds that a manufacturer has failed to renew plans of units produced under the program. There is no statement as to how often plans must be renewed. Does the rule contemplate a renewal of plans each and every year even though plans may not change from year to year? Does the rule require a new set of detailed plans and new quality control manuals even if there have been no changes in those documents since the last renewal?

The Association suggests there is no need of a renewal and no need to submit new sets of detailed plans and quality control manuals so long as the manufacturer has not changed its plans or the manual. If the manufacturer makes changes, section (5) requires the manufacturer to obtain written approval from the director of those changes. There would seem to be no reason to resubmit plans and specifications which have not been changed. This part of the rule burdens the industry by requiring it to prepare and send the forms and it burdens the commission by requiring it to review and store the forms.

3. **4 CSR 240-123.040 (10)** - Subsection (10) was formerly subparagraph (F) of section (1) of this rule. The Association believes that for ease of compliance section (10) should once again should become a subsection of section (1). The purpose of subsection (1) is to set out the information, documents and material which must be submitted to the director. All such information should be set out in section (1).

4. **4 CSR 240-123.040 (11) (C) and (D)** - This rule requires that changes in the systems of an existing modular unit plan be approved. Subsection (C) deals with significant changes and subsection (D) with simple revisions. There is no time frame stated for action by the director for approval or rejection of submittals. The Association suggests that both sections contain wording similar to the following: **Within ten (10) working days of the submittal to the director of the required fees and plan revisions, the director shall approve or refuse to approve the request. A notice of refusal shall specify the reason for refusal.**

5. **4 CSR 240-123.065 (3)** - The proposed rule fails to acknowledge that a dealer does not have a duty to arrange for the proper initial setup if the dealer obtains the purchaser's written waiver of the service. The proposed rule should acknowledge the waiver exception. Therefore, the Association proposes to reread the proposed rule as follows: **If a dealer (unless the dealer obtains the waiver of initial setup referred to in paragraph (1) above) fails to arrange for the proper initial setup of a modular unit, the commission may discipline the dealer registration by suspending it, revoking it, or placing it on probation pursuant to the provisions of section 700.100 RSMo.**

6. **4 CSR 240-123.065 (4)** - This rule provides that the commission will not discipline dealer registration for setup deficiencies occurring more than five (5) years after the date of sale. The Association believes the five (5) year time frame set out in the proposed rule is much too long. A period of two (2) years is more than a sufficient time for any setup deficiencies to become evident.

Section (4) of the proposed rule uses the term "setup deficiencies." Section (2) of the rule defines the term "proper initial setup." The Association suggests that subsection (4) be reworded so that the words "proper initial setup deficiencies" are substituted for the words "setup deficiencies." The two phrases are not synonymous.

7. **4 CSR 240-123.070 (7)** - Section (7) sets out the information monthly sales reports must contain. Section (7)(G) requires the serial number from the certificate of origin for each unit sold be stated. Modular units are affixed to the real estate and as such are fixtures and become part of the real property. Transfer of title after the home is set is by deed and not by certificate of title. It is not legally necessary to issue a certificate of origin and most manufacturers do not provide one. The requirement that the serial number from the certificate of origin be stated can not be complied with and should be deleted. Each home is given a serial number and that number can be reported.

Sections (7) (J) and (L) require the number of used units sold and the total sale price for used units sold be reported. With the passage of Senate Bill 317 the commission no longer regulates used manufactured or modular homes. Therefore there would appear to be no reason to report data for used units sold unless those units are used for educational purposes.

The rule requires the filing of monthly sales reports but it does not include the form upon which the reports are to be made. The proposed rule should include the form of the report which the dealers will be required to use.

8. **4 CSR 240-123.080 (6)** - This rule requires modular unit plans to specify the Seismic Zone for which the unit is built and provides that if the unit is built for open placement, it must be built to Seismic Zone three requirements. The Association believes that this section should be deleted since the building codes referred to in section (3) must be complied with and these codes specify the construction requirements for specific Seismic Zones.

9. **4 CSR 240-123.080 (8)** - Section (8) of the proposed rule makes reference to modular units manufactured "on or after July 1, 1976." The words "on or after July 1, 1976," do not have legal significance and should be deleted. The Association proposes to reword subsection (8) as follows: **All modular units shall be setup or installed according to the manufacturer's installation manual.**

10. **4 CSR 240-124.040 (2) (E)** - This rule sets out the requirements for approval of anchor systems. Section (2)(E)1. provides for the submittal of detailed drawings of proposed anchor systems. The Association believes that installation instructions should also accompany all applications. Therefore the Association would propose to amend section (2)(E)1. as follows:

1. Detailed drawings and **installation instructions** of each type of anchor system and for each type of component for which approval is sought must accompany this submittal.

Paragraph (2) (E) 1.B. requires each drawing to bear the seal of a registered professional engineer, registered in the state of Missouri. It is an unnecessary duplication of effort and unnecessary expense to require drawings which have been prepared by engineers registered in another state to be "recertified" by engineers registered in the state of Missouri. The Association has found that most states allow "reciprocity" for drawings prepared by engineers licensed in sister states. Therefore, the Association proposes to reword subsection B as follows: **B. Each drawing and installation instruction shall bear the seal of a registered professional engineer.**

Paragraph (2)(E) 2. requires each anchor system model to be tested and verified by an "approved testing agency". The rule does not define "approved testing agency" nor does it set out a list of approved testing agencies. The Association believes a definition of "approved testing agencies" or list of approved testing agencies be included in the rule. This will prevent the industry from using testing agencies which the commission does not approve.

Paragraph (2)(E) 2. of this rule makes reference to an "authorized representative" which must issue a certification concerning the three pullout tests to be performed on each anchor system model. The rule does not define or identify the authorized representative and the Association believes that for the sake of clarity the term "authorized representative" should be defined. It is not clear who the authorized representative represents as the rule is now worded.

Paragraph (2)(E)2.A. also requires that each anchor tested "be pulled at 45 degree angle." A review of anchor manufacturer's instructions reveals that a pullout angle of between 40° and 50° is acceptable. The rule was reviewed by members who are registered engineers. The engineers stated that a tolerance of plus or minus five degrees meets acceptable engineering standards. They opined that it would be virtually impossible for any testing agency to certify that a precise angle of 45 degrees was maintained throughout the tests it was asked to certify.

Paragraph (2)(E) 2.B. provides "Failure and ultimate load capacity tests shall be performed on three samples of each component part and must also be witnessed by the authorized representative." The testing required by this subsection duplicates the tests required by subsection 2.C. The Association suggests that subsection 2.B. be deleted.

The last sentence of paragraph (2)(E) 2.C. provides "the anchor will be approved for all soil test probe values at or above the soil test probe value in which the anchor is tested." This language applies to pullout tests conducted in the field and is inappropriately incorporated into the subsection dealing with laboratory tests. This sentence should be deleted from paragraph 2.C. and incorporated into paragraph (2)(E) 2.A.

11. **4 CSR 240-124.045 (1)(C)** - Paragraph (1)(C) of this rule defines anchoring systems as follows: (C) "Anchoring systems means a combination of ties, anchoring equipment, and ground anchors that will, when properly designed and installed, resist overturning and lateral movement of the manufactured home from wind forces;". The use of the words "ground anchors" is too restrictive. The FHA approves the use of anchors set in concrete.

The use of the word "ground" in the definition creates an unnecessary limitation. The Association suggests that the word "ground" be deleted from the definition .

Section (6)(A) discusses the performance of anchors and states "Failure shall be considered to have occurred when the connection between the tie and anchor moves more than two inches vertically or three inches horizontally when pulled at an angle of forty-five degrees under a force of 4,725 pounds." The Association member believes this wording is ambiguous and would be more clearly stated by focusing on the movement of the head of the anchor. The Association also proposes to change the angle of pull from 45° to a range of 40° to 50° for the reasons stated in paragraph 10 of its comments. Therefore the Association proposes to reword this subsection as follows: **"Failure shall be considered to have occurred when the head of the anchor moves more than two inches vertically or three inches horizontally when pulled at an angle of between 40° and 50° under a force of 4,725 pounds."**

Subsection (6)(B) deals with installation and testing of anchors. This subsection requires that each anchor be installed with a "minimum of 750 pounds of pre-load with a minimum of four wraps after installation." The Association's engineers stated that pretensioning to 750 pounds is a requirement that is impossible to monitor because of the inevitable relaxation in tension that occurs following installation. There is a nationally excepted standard for anchor installation and the engineers suggested that it be followed. Using the language contained in the national standard the Association proposes to reword the second sentence of subsection 6(B) as follows: **Each anchor shall be installed and pretensioned until it is flush with the stabilizer plate. The slotted bolt must have a minimum of four wraps of the strap after installation.**

Section (8) deals with spacing of anchors in wind zone 1 conditions. Subsection (A) and (B) each deal with anchor spacing in relation to beam spacing. However, approximately eighty percent of the manufactured homes sold have beam spacing measurements which are not addressed by either section A or B. For instance many manufactured homes have 99.5 inch beam spacing. This proposed rule should be revised to be more all inclusive.

12. The Association believes that Table (D) should be revised. The criss-cross strapping system is recommended for use in homes where the 40° to 50° anchor angle can not be achieved. Therefore, in order to make the caption of the table more descriptive the Association proposes to delete the words "For elevated single section homes (or portions thereof)" and in its place insert the words **"For use in lieu of Diagonal Tie down Strap Spacing Table in circumstances where 40° to 50° anchor angle can not be achieved.**

The Association further proposes to modify the wording under the drawing. Presently that wording is as follows: "50° min. strap angle applies only to homes with 75.5 inch or less I-beam spacing." This is an incorrect statement. The Association proposes to reword it as follows: **50° min. strap angle applies to all homes.**

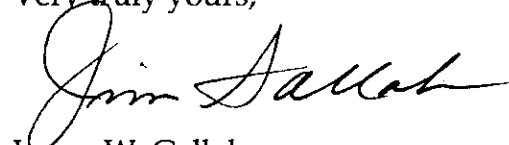
13. Table (E) - The Association proposes to reword the heading of Table E. To make the table more descriptive of its purpose the Association proposes to reword the heading as follows: **Table E strapping system for use in lieu of Diagonal Tie down Strap Spacing Table in circumstances where 40° to 50° anchor angle can not be achieved.**

The Association also proposes to revise the Table E Table (see attached drawing). On the attached drawing, moving from left to right, the piers are numbered 1, 2, 3 and 4 and the anchors are identified as anchor A and B. As per the advice of engineers employed by the Association the strap going from anchor A to pier 4 would be eliminated and replaced by a strap going from anchor A to pier 2. Similarly the strap going from anchor B to pier 1 would be eliminated to be replaced by a strap going from anchor B to pier 3. The straps from anchor A to pier, 1 and from anchor B to pier 4 would also eliminated. In the opinion of the Association's engineers this method of strapping is preferable to the criss-cross strapping system shown in the drawing portion of proposed Exhibit E. Since the Association's proposed drawing eliminates cross strapping, the Association suggests that the words "criss-cross" be deleted from the heading.

14. The regulations as written prohibit the use of vertical ties to stabilize a home. As the commission knows vertical ties are not required in wind zone one but are required in wind zones two and three. Missouri is wind zone one. However the Association believes that in certain circumstances vertical ties may be a useful alternative and therefore should not be prohibited in the proper circumstance.

The Association appreciates the opportunity to comment on the proposed rules and amendments. If the staff would like to discuss any of these issues do not hesitate to give me a call or call Joyce Baker, the Executive Director of the Missouri Manufactured Housing Association at 573-636-8660.

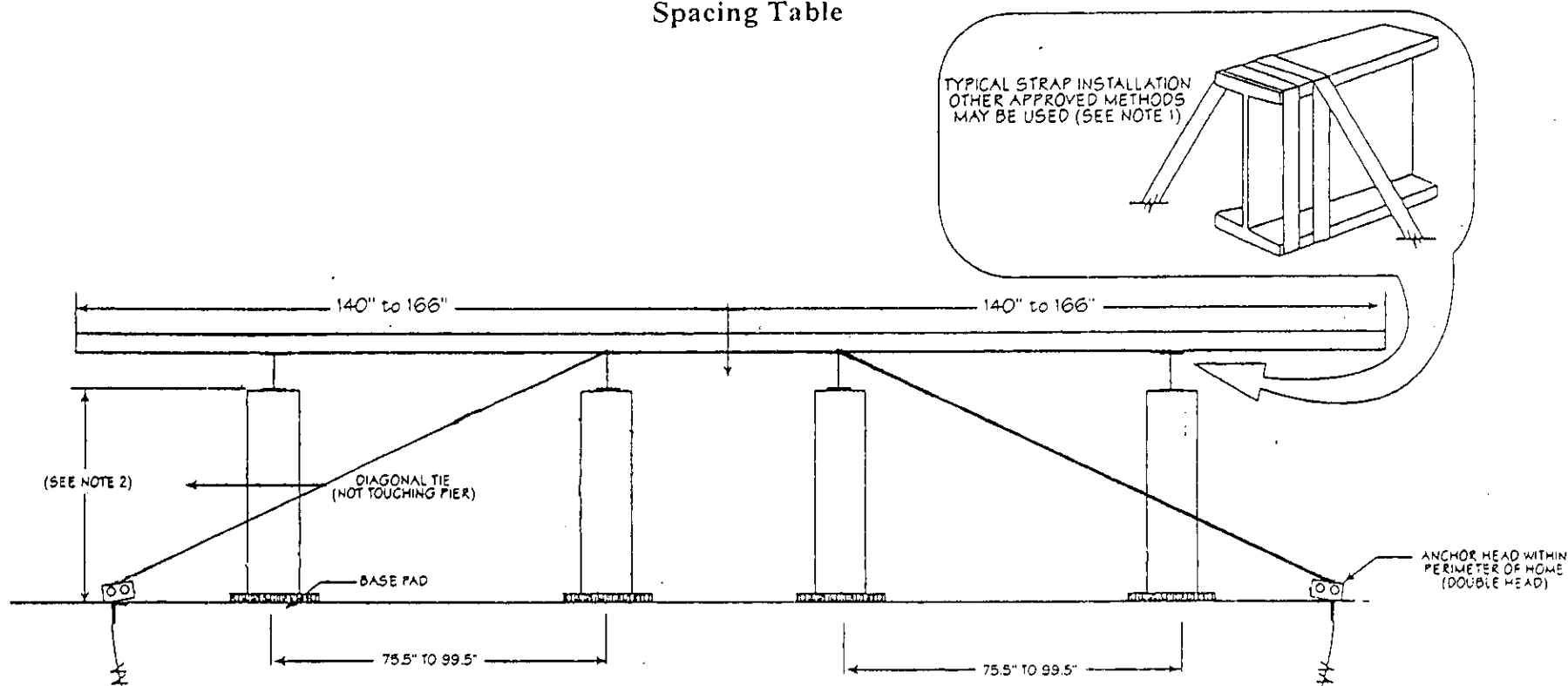
Very truly yours,



James W. Gallaher

JWG:keg

**TABLE (E)**  
**CRISS-CROSS STRAPPING SYSTEM**  
 For elevated multi-section homes  
 (or portions thereof)  
 to be used in lieu of Diagonal Tie down Strap  
 Spacing Table



**NOTES:**

1. Inset drawing shows typical strap installation. All anchors, devices, and tiedown straps to be rated for a 3150 lbs. working load (4725 lbs. overload capacity), in classified soils.
2. Pier height is measured from the top of the ground to the top of the I-Beam. Pier heights exceeding 80\" must have piers and tiedowns designed by a Professional Engineer. Minimum pier height is 12\".