

UNITED STATES GOVERNMENT

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

MEMORANDUM

JUN 24 1988

TO : The Commission

Through: Sadye E. Dunn, Secretary
Leonard DeFiore, Executive Director

FROM : James V. Lacy, General Counsel
Stephen Lemberg, Assistant General Counsel
Allen F. Brauning, Attorney, OGC

SUBJECT: Bunk Bed Petition (CP 86-2)

BALLOT VOTE due JUL 13 1988

A petition from the Consumer Federation of America (CP 86-2) requests the Commission to issue a mandatory standard for bunk beds to address risks of injury to children from falls, entrapment, and strangulation. When the staff briefed the Commission on this petition in November of 1987, the briefing materials included information about Bunk Bed Safety Guidelines published by the American Furniture Manufacturers Association (AFMA) in 1986, and recommendations by the Commission staff for improvement of those Guidelines. In December of 1987, the Commission advised AFMA that it would postpone its decision to grant or deny the petition to afford AFMA 45 days in which to review and respond to the staff recommendations for improvement of the Guidelines. In February of 1988, AFMA informed the Commission of specific revisions of the 1986 Guidelines which would be made in response to the suggestions of the Commission staff.

A briefing package from the staff discusses the revised Guidelines and options available to the Commission with regard to the petition and the revised Guidelines. A restricted memorandum from the Office of the General Counsel dated October 5, 1987, which accompanied the first staff briefing package on the petition, discusses legal considerations involved in a decision by the Commission to grant or deny the petition. Those considerations remain unchanged, notwithstanding AFMA's revision of the Guidelines. The memorandum of October 5, 1987, expresses the current position of the Office of the General Counsel with regard to legal issues involved in granting or denying the petition. A copy of that memorandum is attached.

CPSA 6 (b)(1) Cleared

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RESTRICTED
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OGC MEMO 10/5/87
+ TAB B ASTM GUIDELINES

Among the topics discussed in the memorandum of October 5, 1987, are the procedures of the Consumer Product Safety Act (CPSA) and the Federal Hazardous Substances Act (FHSA) applicable to issuance of the rule requested by the petition. In a rulemaking proceeding under the CPSA or FHSA, when the Commission considers the issue of whether "substantial compliance" with a voluntary standard is likely to occur, the relevant factor is the number of complying units produced by the industry, rather than the number of firms producing in compliance with the voluntary standard. See page 3 of the memorandum of October 5, 1987.

Please indicate your vote:

- I. Grant the petition; direct the staff to prepare an advance notice of proposed rulemaking for approval by the Commission.

Signature

Date

- II. Deny the petition; direct the staff to prepare a letter of denial for approval by the Commission.

Signature

Date

If the Commission votes to deny the petition, one or more of the following options are compatible with that decision:

- A. Transmit the staff comments on the 1988 revision of the Guidelines to AFMA for consideration before final publication.

Signature

Date

- B. Urge AFMA to submit the revised Guidelines to a voluntary standards organization such as the American Society for Testing and Materials or the American National Standards Institute for development and issuance by a consensus process.

Signature

Date

- C. Urge AFMA to develop and implement a program to certify that bunk beds made by AFMA and non-AFMA manufacturers conform to the revised Guidelines.

Signature Date

If the Commission votes to pursue option II A, B, or C, or some combination of them, the staff will prepare an appropriate letter to AFMA for approval by the Commission.

III. Take other action (please specify): _____

Signature Date

IV. Abstain.

Signature Date

Memorandum

JUN 24 1988

TO : The Commission
 THROUGH : Sayde E. Dunn, Office of the Secretary
 THROUGH : James Lacy, General Counsel
 THROUGH : Leonard DeFiore, Executive Director
 THROUGH : Douglas L. Noble, Director, Office of Program Management and Budget
 THROUGH : Carl Blechschmidt, Program Manager, Office of Program Management and Budget
 FROM : Elaine A. Tyrrell, Project Manager, Children's and Recreational Products Program, OPMB
 SUBJECT : Bunk Beds: Transmittal of Follow-Up Information to Commission Briefing on November 7, 1987

As a result of the November 5, 1987 Commission briefing on bunk beds, the Commissioners forwarded a letter to the American Furniture Manufacturers Association (AFMA) requesting AFMA's consideration of staff recommended improvements to the 1986 Bunk Bed Safety Guidelines. The attached package contains a summary of the follow-through activities associated with that request including the staff's evaluation of the AFMA's revisions to the 1986 Guidelines.

Resource Implications

In Memoranda transmitted to the Commission on October 1, 1987, and December 1, 1987, the staff provided resource estimates for the various recommendations put forth in the briefing package used at the November Commission briefing. The resource levels remain much the same as those stated in the original memoranda; however, adjustments have been made to reflect current time frames.

As stated in the October 1 memorandum, the Children's and Recreational Products Program Team estimate that approximately 37 professional staff months would be needed to develop and issue mandatory safety regulations for Bunk Beds. Further, it was stated that this would take approximately 2½ years. Using current time frames, the resource estimates on a yearly basis would be:

- FY 1988 - 6 professional staff months
- FY 1989 - 15 professional staff months
- FY 1990 - 16 professional staff months

In the December 1, 1987 memorandum, resource estimates were provided for staff monitoring or participating in the development of a voluntary standard (5 staff months for either option) and for a survey to determine level of conformance with the Bunk Bed Guidelines

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NOTE: This document has not been reviewed or accepted by the Commission.
 Initial Date 6/24/88

(depending on approach selected, one to nine staff months may be required). Details of the two approaches for conducting the survey are provided in the original memorandum.

Depending on the course of action selected by the Commission, adjustments to these resource estimates and to the operating plan for the Children's Program may need to be made. If the Commission grants the petition and resources were to be traded out of other projects in the Children's Program in Fiscal Years 1989 and 1990, it is likely that it would be those projects that are of lower rank in priority; i.e., trade out from the voluntary standards project.

Staff Concurrence

The Directorates for Compliance and Administrative Litigation, Economic Analysis, Engineering Sciences, Epidemiology, Field Operations and Health Sciences; and the Office of Information and Public Affairs, Planning and Evaluation, and Program Management and Budget have reviewed this package and approve its contents.

Pursuant to Section 5 of the Commission General Policies of March 18, 1987, the Executive Director indicates that he is reasonably aware of any relevant and significant minority or dissenting views on this issue except for those contained in this package, if any.

Executive Summary

The Commission is considering a petition filed by the Consumer Federation of America (CFA) which requests the issuance of a mandatory safety rule to address three hazards identified with bunk beds. The Commission staff reviewed the issues associated with the petition and evaluated the 1986 Bunk Bed Guidelines developed by the American Furniture Manufacturers Association (AFMA) in response to an earlier request of the staff to address these hazard patterns plus two others previously identified by the staff. This information was presented to the Commission in a briefing on November 7, 1987.

In a letter dated December 17, 1987, the Commissioners forwarded a letter to AFMA requesting their review of staff recommendations for improving the Guidelines. The AFMA reviewed the recommendations and presented the results of their deliberations to the Commission in a letter dated February 18, 1988.

The staff has reviewed the February 1988 revisions to the Guidelines and believes that they represent a substantial improvement over the provisions contained in the Guidelines published in 1986. Three of the five identified hazard patterns have been adequately addressed in the Guidelines: failure of the mattress support system (adequately addressed in the 1986 Guidelines); entrapment between the mattress and guardrail, and entrapment/falls associated with certain end structures of upper bunk beds (both are adequately addressed in the February 1988 revisions).

While provisions for the remaining two hazard patterns have been improved (entrapment between the bed and wall, specifically the lower bunk when used as a child's first regular bed, and entrapment between the mattress and the structure), the staff believes they would be more effective if the staff's suggested wording had been adopted for the label and Instructions in the February 1988 revisions.

A majority of the staff continue to be concerned over issues of widespread recognition of and adequate compliance with the Guidelines by AFMA and Non-AFMA firms on a continuing basis, and a mechanism for a periodic review and update of the Guidelines' provisions.

The staff has provided recommendations and supporting rationale for Commission consideration on the CFA Petition and the AFMA February 1988 revisions to the Guidelines. Three Directorates and two Offices recommend granting the petition while the remaining three Directorates recommend denying the petition. The majority of the staff recommends that at a minimum 1) the staff's comments on the February 1988 revisions be forwarded to AFMA with the request that serious consideration be given to them once more before final publication of the 1988 Guidelines, 2) that, although not required by law, the Bunk Bed Guidelines be referred to a voluntary standards writing organization, such as ASTM or to a certified canvass sponsor organization under the auspices of the American National Standards Institute (ANSI), where it can be developed as a voluntary safety standard using the consensus process (manufacturers, retailers, consumers, and government representatives), and 3) that a certification program be established.

Memorandum

JUN 24 1988

TO : The Commission *ES*
 THROUGH : Sayde E. Dunn, Director, Office of the Secretary *ES*
 THROUGH : James V. Lacy, General Counsel *JV Lacy*
 THROUGH : Leonard DeFiore, Executive Director *LD*
 THROUGH : Douglas L. Noble, Director, Office of Program Management
 and Budget
 THROUGH : Carl W. Blechschmidt, Program Manager, Office of Program
 Management and Budget (OPMB) *DIN*
 FROM : Elaine A. Tyrrell, Project Manager, Children's and
 Recreational Products Program, OPMB *EATyrrell*
 SUBJECT : Bunk Beds: Follow-Up Information to Commission Briefing on
 November 7, 1987

Issue:

Whether to grant or deny petition CP 86-2 submitted by the Consumer Federation of America (CFA) requesting the Commission to issue a mandatory safety rule to address the various hazards identified with bunk beds.

Background:

On November 7, 1987, the staff briefed the Commission on issues raised in the CFA petition on bunk beds. Included in the briefing was a discussion of the staff activities with the Inter-Industry Bunk Bed Committee (IIBBC) of the American Furniture Manufacturers Association (AFMA) and its evaluation of the resulting Bunk Bed Guidelines that were published in 1986.

Following the briefing, the Commissioners forwarded a letter to the AFMA, dated December 17, 1987, which was accompanied by staff recommendations for improving the Bunk Bed Guidelines (Tab A). In the letter, the Commissioners stated their intentions to postpone a Commission decision on the CFA petition until AFMA had an opportunity to review the staff recommendations. The letter asked for a response within 45 days.

Through subsequent communications with AFMA, it was mutually agreed that the IIBBC would formally respond to the staff recommendations within two weeks after a scheduled February 9, IIBBC meeting in Greensboro, North Carolina. Public notice of the meeting was posted in the classified advertisement section of USA Today on January 7, 1988, by AFMA and in the CPSC public reading room and in the CPSC public calendar by Commission staff. Prior to this meeting, the staff was requested by AFMA to develop a draft label for bunk beds. The ~~staff recommended~~

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label that was transmitted to AFMA was drafted to reflect the Commissioner's concerns regarding adequate guidance to consumers, particularly with regard to guardrail/mattress position and size, as expressed in their December 17, letter (letter to AFMA transmitting draft label and other information appears at Tab B). The Commission was represented at the IIBBC meeting by the Project Manager for the Children's and Recreational Projects Program (copy of the meeting log with pertinent attachments appears at Tab C).

By letter of February 18, 1988, the IIBBC transmitted to each Commissioner a copy of the IIBBC's decision with regard to staff recommendations for the Guidelines (Tab D). The staff has evaluated the IIBBC response. The discussion below reflects the staff's reviews.

Discussion:

The staff's remarks cover two areas of concern: evaluation of provisions drafted by IIBBC for the revised 1986 Guidelines and the likelihood of industry conformance to these Guidelines.

Evaluation of Provisions

The remarks below cover the major issues related to 4 of the 5 major hazard patterns related to bunk beds the staff did not believe had been adequately addressed by the 1986 Guidelines.* The paragraph citations refer to those used in the 1986 Guidelines and carried over by the IIBBC to the charts attached to their February 18, 1988 letter.

1. Entrapment Between the Mattress and Guardrail (§3.5.4 and §3.8.2.)

The 1986 Guidelines contained two alternative provisions to address this entrapment hazard. The alternative specifying a maximum opening between rigid bed structures and guardrail was acceptable to the staff. The second alternative specifying a maximum opening between the mattress and guardrail was not acceptable to the staff and this provision has been eliminated in the February 1988 revisions. This action on the part of the IIBBC negates the need of specifying mattress thickness on a label to address entrapment as suggested by the staff.

2. Entrapment Between Bed and Wall (§3.8.2 and §3.9,5 (h)).

In the 1986 Guidelines, the Instructions recommended two guardrails when the top bunk is not against the wall. Entrapment between bed and wall was not addressed. The February 1988 revisions have adequately addressed entrapment between top bunk and the wall by requiring two guardrails to accompany every top bunk and by

*As discussed in the October 1, 1987, staff briefing package on petition CP 86-2, the staff believes the hazard pattern that initiated the project (failure of the mattress support system) is adequately addressed in the 1986 Guidelines.

including an appropriate message in the warning label. However, the staff believes that this message also should be included in the Instructions that appear at ¶3.9,5(h).

The staff does not believe that the entrapment hazard that exists between the bottom bunk and the wall (either as a bunk bed or in the twin configuration) has been addressed completely by the February 1988 revisions. The availability of two guardrails on one bed may alleviate the problem when the bed is pushed against the wall. However, the staff does not believe that this entrapment hazard for the lower bunk is self evident and believes that the following wording should be included in the new IIBBC warning label: "When lower bunk or separated bed is used as child's first regular bed, use second guardrail between bed and wall." (See proposed labels as suggested by AFMA and Commission staff at the end of this memorandum. Note that staff wording in the label differs slightly from that quoted above.)

3. Entrapment Between the Mattress and Bed Structure (¶3.3, ¶3.8.2, and ¶3.9,3)

This hazard pattern may be created in one of two ways: 1) the manufacturer may construct the bed such that a space would be created between the bed structure and the mattress perimeter which could cause an entrapment, or 2) the consumer could mistakenly choose a regular sized mattress for an extra long bed structure thus creating a space sufficient to cause an entrapment.

While the 1986 Guidelines did not address the first scenario, it did attempt to address the second scenario by requiring language in the Instructions to specify mattress width, length, and thickness. The staff recommended that this information also be included in a permanent label to inform consumers as well.

The February 1988 revisions have addressed the first scenario 1) by specifying that the structure (length and width) should be constructed so that it is not more than 1½ inches greater than the corresponding mattress dimension, and 2) by adding to the label and Instructions the statement: "When centered, mattress must be no more than 1" at any point from the interior bed structure..." The staff believes that the second scenario would be more adequately addressed if information on the label specified whether the bunk bed required a regular or extra-long mattress.

4. Entrapment/Falls Associated with Certain End Structure of Upper Bunk Beds (¶3.6.2).

The 1986 Guidelines contained language which would allow free passage of a cube of any dimension between 3½ and 8 inches in any orientation when the mattress and foundation are in place. Staff did not believe such provisions would adequately address the entrapment/fall hazard represented by certain end structures.

In the February 1988 revisions, the IIBBC adopted the staff's suggestions of requiring a provision similar to the entrapment provision for side guardrails; i.e., openings in the rigid end structure of the upper bunk should be so designed as to prevent passage of a 3½ inch cube.

Additional staff comments related to the evaluation of the February 1988 revisions are contained in staff memoranda from the Directorate for Epidemiology - Human Factors and the Directorate for Engineering Sciences (Tabs E and F, respectively). Many of these comments relate to specific paragraphs in the revisions and suggested wording for consistency. Also, at Tab F is a draft Introduction for the February 1988 revisions prepared by the staff. This Introduction would provide the reader with information on each identified hazard pattern that is being addressed by the Guidelines. Such information would enable the reader to better understand the reasons for the various provisions in the Guidelines and why bunk beds should be manufactured in accordance with these Guidelines. A majority of the staff believes the Introduction drafted by IIBBC minimized the hazards associated with bunk beds and may defeat the need for the Guideline in the minds of the readers (manufacturers).

Likelihood of Conformance

Staff discussions with AFMA/IIBBC during the development of the Guidelines included concerns that there be some assurance of industry compliance with the Guidelines on a continuing basis by all manufacturers of bunk beds (AFMA members as well as non-AFMA bunk bed manufacturers and importers), and that a mechanism be created to provide for a periodic review and update of the Guidelines to reflect current state-of-the-art technology which may contribute to new hazard patterns.

The staff had suggested to the IIBBC the voluntary standards approach, although not required by law, using the consensus process (such as ASTM or ANSI), which would achieve wide-spread recognition of the identified bunk bed hazards and better adherence to the measures developed to reduce the hazards. Also, voluntary standards developed through a recognized voluntary standards organization would be provided with a mechanism for a periodic review and update of provisions.

The cover letter to the February 1988 revisions states that the IIBBC expects bunk bed manufacturers to be in substantial compliance by the April, 1989 National Furniture Market and that as a standing committee, the IIBBC will actively publicize the 1988 IIBBC Guidelines. Also, the February 1988 revisions charts include statements in a new section, designated ¶4.0, indicating that the Bunk Bed Guidelines will be implemented by the April, 1989 National Furniture Market.

A majority of the staff believes that while the time frame for implementing the Guidelines may be adequate, it is not appropriate to include this statement as part of the provisions of the Guidelines. Also, a majority of the staff believes that the issues of wide-spread recognition and adherence to the provisions contained in the Guidelines are not adequately discussed in the February submissions of the IIBBC.

Commission staff had made two visits to industry trade shows, but the staff has not conducted any formal monitoring project of bunk bed conformance to the guidelines as the Commission has with certain other voluntary standards. Economic information provided in the October 1, 1987, staff briefing package indicates that there are currently over 70 firms making bunk beds. Virtually every manufacturer of furniture is a potential manufacturer of bunk beds. There are possibly hundreds of smaller "garage type" manufacturers of bunk beds producing small numbers of bunk beds each year. In addition, some bunk beds are imported. It was also indicated in the October 1987 package that about 40 firms account for 75-85% of annual sales. Of these, 25 are members of AFMA.

Information in the October briefing package provided by AFMA indicates that they were aware of 39 bunk bed manufacturers, as identified in the 1982 Census of Manufacturers, and that 32 were estimated to be AFMA members.

Insofar as future conformance with the revised Guidelines are concerned, a majority of the staff believes that not enough assurance has been provided by AFMA that 1) the Guidelines will reach AFMA and non-AFMA firms who make bunk beds and that 2) the firms will adhere to the provisions. However, the staff has not made any formal estimates of potential conformance to the revised Guidelines.

There is also concern that the continued existence of provisions to address bunk bed hazards in ANSI Z357.1, the voluntary standard for Bedding Products and Components, may be confused by manufacturers as being the only provisions available to address bunk bed hazards.

Staff Conclusions and Recommendations

The staff believes that the February 1988 revisions to the Bunk Bed Guidelines represent a substantial improvement over the provisions contained in the Guidelines published in 1986. Specifically, the latest revisions adequately address 2 of the 4 remaining hazard patterns identified by the staff; i.e., entrapment between the mattress and guardrail and entrapment/falls associated with certain end structures of upper bunk beds. While the provisions for the remaining two hazard patterns (entrapment between bed and wall and entrapment between the mattress and bed structure) have been improved, the staff believes they would be more effective if the staff's suggested wording had been adopted for the label and instructions. In addition, the staff believes that the Guidelines would be more readily obtainable by all manufacturers of bunk beds and therefore more effective if they were published as a voluntary standard.

The staff's recommendations on the Guidelines remain much the same as those provided in the October 1987 briefing package at Tab C, page 7. A majority of the staff continues to recommend that at a minimum (i.e., if the petition were to be denied), 1) the staff's comments on the February 1988 revisions be forwarded to AFMA with the request that serious consideration be given to them once more before final publication of the 1988 Guidelines, 2) that, although not required by

law, the Bunk Bed Guidelines be referred to a voluntary standards writing organization, such as ASTM or to a certified canvass sponsor organization under the auspices of the American National Standards Institute (ANSI), where it can be developed as a voluntary safety standard using the consensus process (manufacturers, retailers, consumers, and government representatives), and 3) that a certification program be established. However, AFMA, to date, has not indicated willingness to pursue national certification of the Guidelines, like organizations such as ASTM or ANSI, or to establish a certification program.

Regarding the granting or denying of petition CP 86-2, two organizations have changed their recommendation from that which was provided in the October 1987 briefing package (page 6 and 7). The Directorates for Compliance and Administrative Litigation, Engineering Sciences, and Health Sciences; and the Office of Information and Public Affairs, and the Office of Program Management and Budget recommend granting the petition. The Directorates for Field Operation, Economic Analysis, and Epidemiology recommend denying the petition.

The rationale for the recommendations, with respect to the Guidelines and the Petition, are contained in memoranda from the various Directorates and Offices: Compliance and Administrative Litigation (Tab G), Engineering Sciences (Tab H), Health Sciences (Tab I), Information and Public Affairs (Tab J), Program Management and Budget (Tab K), Field Operations (Tab L), Economic Analysis (Tab M) and Epidemiology (Tab N). Some of these memoranda appeared in the October 1, 1987, briefing package. They are provided in this package for convenience to the reader along with new memoranda from the various Directorates and Offices.

AFMA LABEL

D R A F T

Proposed New Bunk Bed Label



WARNING

To help prevent serious injuries from entrapment or falls:

When centered, mattress must be no more than one inch at any point from the interior bed structure.

Use guardrails on both sides of upper bunk.

Use the ladder for leaving and entering upper bunk.

Prohibit children under 6 years on upper bunk.

Ensure all connectors are tight.

Prohibit horseplay on or under bed (s).

Follow and keep written instructions with this bed.

DO NOT REMOVE THIS LABEL

CPSC STAFF LABEL

DRAFT BUNK BED GUIDELINES LABEL



WARNING

To prevent serious injuries from entrapment or falls:

Use only mattresses which are:

_____ size;
_____ inches thick.

Use guardrails on both sides of bed when:

- Upper bunk is not against wall;
- Bed is used as child's first regular bed.

Prohibit children under 6 on top bunk.

Do Not Remove

"_____ size" should specify either "twin" or "twin extra long".

"_____ inches thick" should specify either a dimension or range of dimensions necessary to meet other parts of the guidelines such as:

3.53 - mattress shall be at least 5 inches below top of guardrail.

3.54 - mattress shall be within one inch of bottom of guardrail (used when bed does not comply with 3-1/2 inch cube requirement.)

Attachments

Tab A Letter from CPSC Commissioners to Douglas Brackett, Executive Vice President, American Furniture Manufacturers of America, dated December 17, 1987.

Attachment:

- Voluntary Bunk Bed Safety Guidelines - Staff Recommendations

Tab B Letter from Elaine Tyrrell, CPSC, to Joseph Ziolkowski, Inter-Industry Bunk Bed Committee (IIBBC), dated January 26, 1988.

Attachment:

- Draft Bunk Bed Guidelines Label
- Introductory Paragraphs for Four Existing Voluntary Standards.

Tab C Log of Meeting: Inter-Industry Bunk Bed Committee (IIBBC) Meeting to discuss Commission staff suggested revisions to Bunk Bed Guidelines.

Attachments:

- a) Announcement of meeting of IIBBC in U.S. Today, Thursday, January 7, 1988.
- b) CPSC Public Calendar Notice of IIBBC Meeting on February 9, 1988.
- c) Letter from Commissioners to AFMA, dated December 17, 1987, (See Tab A).

Tab D Letter from Kevin O'Connor, IIBBC, to each of the Commissioners (copy of letter to Chairman Scanlon), dated February 18, 1988.

Attachments:

- Memorandum from Kevin O'Connor, Chairman, to Inter-Industry Bunk Bed Committee, "Results of IIBBC Meeting, February 9, 1988, Marriott Hotel, Greensboro, N.C." dated February 11, 1988.

- o Draft Proposed New Bunk Bed Label
- o Bunk Bed Summary Chart

Tab E Memorandum from Shelley W. Deppa, EPHF, to Elaine A Tyrrell, EX-PB, "Evaluation of Revised Bunk Bed Industry Guidelines," dated April 18, 1988.

- Tab F Memorandum from John Preston, ESMT, to Elaine Tyrrell, EXPM, "ES Comments on 1988 Revisions to Voluntary Bunk Bed Safety Guidelines," dated April 13, 1988.
- Tab G Memorandum from David Schmeltzer, AED, Compliance and Administrative Litigation, to Elaine Tyrrell, OPMB, "CA Recommendation to Grant Petition to Promulgate Mandatory Standards for Bunk Beds," dated May 6, 1988.
- Tab H Memorandum from William Walton, AED, Engineering Sciences, to Elaine Tyrrell, EX-PM, entitled "ES Recommendation Concerning CFA Petition (CP-86-2) on Bunk Beds," dated May 12, 1988.
- Tab I Memorandum from Andrew G. Ulsamer, AED, HS, to Elaine A. Tyrrell, Children's & Recreation Products Program, entitled, "Bunk Beds-CP-86-2," dated April 13, 1988.
- Attachment:
- Memorandum from Warren K. Porter, Director, HSHL, to Elaine A. Tyrrell, OPMB, entitled "CP-86-2 Bunk Beds" dated September 24, 1987.
- Tab J Memorandum from David Shiflett, Director, Office of Information and Public Affairs, to David Thome, OPMB, entitled "Bunk Beds," dated September 22, 1987.
- Tab K Memorandum from Douglas L. Noble, Director, Office of Program Management and Budget, To The File, entitled "OPMB Recommendation to Grant Petition to Promulgate Mandatory Standards for Bunk Beds," dated May 19, 1988.
- Tab L Memorandum from Alfred L. Roma, AED, Field Operations, to Elaine A. Tyrrell, Project Manager, entitled "Recommendations on Bunk Beds," dated May 17, 1988.
- Tab M Memorandum from Warren J. Prunella, AED, Economic Analysis, to Elaine Tyrrell, OPM, entitled "Bunk Beds," dated May 6, 1988.
- Tab N Memorandum from Dr. Robert D. Verhalen, AED, Epidemiology, to Elaine A. Tyrrell, EXPM, entitled "Briefing Package on Bunk Beds: Evaluation of February 1988 Guideline Revisions," dated May 13, 1988.

A



U.S. CONSUMER PRODUCT SAFETY COMMISSION

WASHINGTON, D.C. 20207

December 17, 1987

Mr. Douglas L. Brackett
Executive Vice President
American Furniture Manufacturers
Association
Post Office Box HP-7
High Point, NC 27261

Dear Mr. Brackett:

As you know, the Consumer Product Safety Commission recently received a petition from the Consumer Federation of America which calls for mandatory safety standards for bunk beds. We would like to postpone a Commission decision to deny or grant the CFA petition until we have given AFMA an opportunity to review the attached CPSC staff recommendations. We would appreciate a response from you within 45 days as to your intentions with regard to these recommendations. The Commission will then schedule consideration of the CFA petition.

In addition, we would like to see some clarification of the warning statement on your current label. For example, the phrase "(g)uard-rail/mattress position and size are important" does not provide adequate guidance to a purchaser. It would be advisable to designate which sizes or positions should be used. Our staff is willing to work with you in this regard.

We commend AFMA for expeditious work on the Guidelines and we are encouraged that preliminary indications point to a high degree of adherence among your members. However, in the interests of even greater safety benefits, we would like to see the staff proposed revisions given your most serious consideration before any final decision is made on disposition of the CFA petition.

Sincerely,

Terrence Scanlon
Chairman

Carol Dawson
Vice Chairman

Anne Graham
Commissioner

Attachment

bl cc: Vice Chairman Carol Dawson
Commissioner Anne Graham

Mr. Joe Gerard
Ms. Mary Ellen Fise

12/11/87

Voluntary Bunk Bed Safety Guidelines Staff Recommendations

There were 5 major hazard patterns which the Commission staff originally asked AFMA to address and which we believe to be most critical. At this time, one of these hazard patterns, failure of the mattress support system, is adequately addressed by the Guidelines. However, significant improvements should be made in the provisions dealing with the other four hazard patterns. The following is a discussion of the changes which we believe necessary and the rationale for each. The paragraph citations refer to those in the May 23, 1986, Guidelines.

1. Entrapment Between the Mattress and Guardrail (§3.5.4 and §3.8.2)

The Commission is aware of at least 54 incidents, including 10 deaths, of entrapment between the mattress and guardrail since 1973.

The Guidelines contain two alternative provisions to address this entrapment hazard. The first alternative, specifying a maximum opening between rigid bed structures and guardrail, is adequate ("there shall be no openings in the rigid bed structure below the lower edge of the guardrail that would permit the free passage of a 3½-inch cube in any orientation---"). However, the second alternative, specifying a maximum opening between the mattress and guardrail, is not adequate ("--- or the lower edge of the guardrail shall not be more than 1 inch from the mattress").

There are four reasons for our objections: 1) if bunk bed manufacturers do not supply mattresses with their beds, they cannot control mattress thickness/compressibility (at the January 30, 1986, meeting with the IIBBC, the staff was told that mattress thickness can vary from 2 to 9 inches), 2) a mattress supplied by the manufacturer that complies with the 1-inch space provision, uncompressed, may create a hazardous opening when compressed under the weight of a child, 3) deteriorating mattresses may become more compressible, and 4) consumers purchasing second-hand bunk beds or consumers with older bunk beds may replace the mattresses. Since there is no provision for a label on the bed with mattress size/fit requirements, and the instructions (which include mattress/foundation size) may be lost, the replacement mattress may be smaller in length, width, and thickness than the mattresses the bunk bed manufacturer intended for use on the bed.

In addition, the Guidelines contain a provision for a "Caution" label which attempts to address this hazard by stating "guardrail/mattress position and size are important." Since entrapment between mattress and guardrail can, but does not always, result in death, the proper signal word for the label is "Warning". "Caution" is only used when minor injury may result. "Danger" is only used if death will result. If there is a probability of death, "Warning" is the proper signal word.

2. Entrapment Between Bed and Wall (§3.8.2 and §3.9.5(h))

Given industry's position that the top bunk is designed for use by children over the age of six, we believe that the sentence in the Instructions at 5(h) is adequate to address the problem of older children falling from the top bunk. However, through the available incident data, we are aware of the practice of placing children younger than six years who have just outgrown a crib either in the lower bunk or in a bunk bed used in the twin configuration, with no guardrails or with only a guardrail on the side away from the wall. We are aware of at least 15 children who have died when they rolled between the bunk bed and the wall. Therefore, an additional sentence should be added recommending that when the bed is used as a child's first regular bed, a second guardrail be used between the bed and wall.

In addition, the label at §3.8.2, stating that "If not against wall, use two guardrails", gives a false sense of security that if the bed is against the wall, a second guardrail is not needed. At a minimum, this language should be consistent with that in the Instructions by modifying it to read "If upper bunk is not against wall, use two guardrails." Second, a sentence recommending use of a second guardrail between the bed and wall when the bed is used as a child's first bed (similar to that recommended for the Instructions) should be added to the label.

3. Entrapment Between the Mattress and Bed Structure (§3.3 and §3.9,3)

The Commission has identified four cases (including one death) where entrapment occurred in spaces between the mattress and bed structure.

Paragraph 3.3 in the Guidelines states that the manufacturer shall include mattress width, length, and thickness specifications in the written Instructions (that are specified in ¶3.9,3). We believe that this is inadequate for two reasons. First, although mattress widths and lengths are standardized, mattresses come in two lengths: "regular" - 74½ inches and "extra long" - 79½ inches. Without a permanent label on the bed, consumers may purchase the incorrect length mattress for their bed structure. We have reports of entrapment incidents between the mattress and end structure where the mattress was of regular length and the bed structure was of extra long length. Second, without a provision specifying a maximum dimension between the bed structure and the mattress, a large space between bed structure and mattress may occur. The Guidelines should specify that the interior size of the bed structure should not be more than 1½ inches greater than the nominal size of the mattress.

4. Entrapment/Falls Associated with Certain End Structures of Upper Bunk Beds (¶3.6.2)

The Commission is aware of at least 14 cases of entrapment, including two deaths, in bunk bed end structures.

In the Guidelines it states that there shall be no openings in the end structures of the upper bunk that would allow free passage of a cube of any dimension between 3½ and 8 inches in any orientation when the mattress and foundation are in place. Such wording would permit openings of up to 3½ inches above the mattress surface. Mattress compressibility could result in an opening even greater than 3½ inches which could present an entrapment hazard. Furthermore, an opening in the end structure capable of permitting free passage of an 8-inch cube could increase the likelihood that a child could fall from the top bunk, since a child could pass through an opening of this size.

In summary, one of the 5 hazard patterns is adequately addressed by the Guidelines. To address the other four hazard patterns, the provisions in the Guidelines should be modified as follows:

HAZARD

Mattress & Guardrail

PROVISION

¶3.5.4 Delete: "... or the lower edge of the guardrail shall not be more than 1 inch from the mattress."

¶3.8.2 Add a second permanent label which specifies mattress size and fit.

HAZARDPROVISION

Bed & Wall

¶3.8.2 To the Label, a) Change Signal word to: "Warning"; b) modify sentence to read: "If upper bunk not against wall, use two guardrails."; and c) Add: "When bed, other than upper bunk, is used as child's first regular bed, use second guardrail between bed and wall."

¶3.9.5(h) To the Instructions add the following: "Use two guardrails when the bed, in the twin configuration or as a lower bunk, is to be used as a child's first regular bed. Even when the bed is pushed against a wall, a young child may roll between the bed and wall resulting in entrapment and possible suffocation."

Mattress & Bed Structure

¶3.3 Add: "The interior size of the bed structure shall not be more than 1½ inches greater than the nominal size of the mattress."

End Structure

¶3.6.2 Modify to read: "There shall be no openings in the rigid end structure of the upper bunk that would permit the free passage of a 3½-inch cube in any orientation."

The provisions discussed above are the ones which we believe to be most critical. There are also a number of other provisions which could be modified or improved. We would like to bring these to your attention so that modifications to these provisions can be considered.

- Pages 1 and 2 - The term "guidelines" appears in both the singular and plural form. One form of the word should be chosen and used consistently throughout the document.
- Page 1, Sec. 2 - The term "standard" is used instead of "guideline(s)". They are not interchangeable terms. The word "Guideline(s)" should be used for this document.
- Page 1, ¶ 2.5 - The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with ¶ 2.1

- Page 2, ¶ 3.1 - This paragraph should reference the Standard for the Flammability of Mattresses and Mattress Pads, 16 C.F.R. Part 1632. During inspections of bunk bed manufacturers conducted by Commission staff, it was noted that a number of the manufacturers were manufacturing mattresses for their bunk beds. Approximately half a dozen firms were not in compliance with this mandatory standard.
- Page 2, ¶3.4.2 - Bolt - On Side Rails. The minimum spacing for side rail attachment bolts was changed, and the Commission staff was not been informed of the reason for this change. In the 1979 Guidelines (later adopted as ANSI Standard Z357.1) the minimum bolt spacing was 4 inches. This was reduced to 2 inches in the December 1985 version of the Guidelines and is 1.5 inches in the current version. The staff believes that a 1.5 inch spacing could be inadequate for certain types of bolt-on side rails.
- Page 3, ¶3.6.1 - Bed End Structure. We prefer the wording or this paragraph that was submitted to AFMA in the staff's February 11, 1986, memorandum: "The upper edge of the upper bunk bed structures shall be at least 5 inches above the sleeping surface when a mattress and foundation of the size and thickness specified by the manufacturer's instructions is used on the upper bunk. Portions of the end structure that are within 6 inches of the bed posts are exempt from this requirement."
- Pages 3 & 4,
¶ 3.7.1 &
¶ 3.7.2 - Ladders. The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with that in ¶ 2.1.
- Page 5,
¶ 3.9,5(e) - Safety Precautions. This sentence needs to be rewritten. The current version implies that one can jump under the bed.

B



U.S. CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, D.C. 20207

JAN 26 1988

Mr. Joseph Ziolkowski
IIBBC
P.O. Box HP-7
High Point, N.C. 27261

Dear Joe:

The Commission has received the memorandum from Kevin O'Connor, Chairman of the Inter-Industry Bunk Bed Committee, which provides the details for the IIBBC meeting on February 9, in Greensboro, N.C. As you requested, details of the meeting are available in the CPSC public reading room as well as listed in the CPSC Public Calendar. As stated in the Public Calendar notice, I will represent the Commission at the February 9 meeting.

As requested by Joe Gerard, I am enclosing two items which Joe and I have discussed during our recent telephone conversations. The Draft Bunk Bed Guidelines Label was developed by the staff in response to the Commissioners' concerns as expressed in their December 17 letter; however, the Commission has not reviewed or endorsed the draft. Also enclosed are the introductory paragraphs for four existing voluntary standards which can serve as examples for developing an introduction for the Bunk Bed Guidelines that explains the injury data and the reasons for the Guidelines. These documents and the CPSC staff comments attached to the Commissioners' December 17 letter should be considered as comments for consideration by the IIBBC at the February 9 meeting.

Sincerely,

Elaine A. Tyrrell

Elaine A. Tyrrell, Project Manager
Children's and Recreation Products
Program
Office of Program Management and Budget

Enclosures

cc: Mr. Joseph Gerard
American Furniture Manufacturers Association
918 16th Street, NW
Suite 402
Washington, DC 20006

December 2, 1987

DRAFT BUNK BED GUIDELINES LABEL

 WARNING
To prevent serious injuries from entrapment or falls:
Use only mattresses which are:
- _____ size;
- _____ inches thick.
Use guardrails on both sides of bed when:
-Upper bunk is not against wall;
-Bed is used as child's first regular bed.
Prohibit children under 6 on top bunk.
Do Not Remove

" _____ size" should specify either "twin" or "twin extra long".

" _____ inches thick" should specify either a dimension or range of dimensions necessary to meet other parts of the guidelines such as:

- 3.53 - mattress shall be at least 5 inches below top of guardrail.
- 3.54 - mattress shall be within one inch of bottom of guardrail (used when bed does not comply with 3-1/2 inch cube requirement.)

CPSA 6 (BAM) Cleared
K 1/23/88
Product Identified
Accepted by _____
Date Notified _____
Complaint Processed _____

NOTE: This document has not been
reviewed by CPSC
K 1/23/88

C

LOG OF MEETING

SUBJECT: Meeting of Inter-Industry Bunk Bed Committee (IIBBC) to discuss Commission staff suggested revisions to Bunk Bed Guidelines.

DATE OF MEETING: February 9, 1988

PLACE: Greensboro Marriott Hotel
Greensboro, N.C.

LOG ENTRY SOURCE: Elaine A. Tyrrell, OPMB

COMMISSION REPRESENTATIVES:

Elaine A. Tyrrell, Office Program Management and Budget

NON-COMMISSION REPRESENTATIVES:

Kevin O'Conner, Chairman, Inter-Industry Bunk Bed Committee
Douglas L. Brackett, American Furniture Manufacturers Association (AFMA)
Joseph G. Gerard, AFMA
Joseph Ziolkowski, AFMA
David Frankil, AFMA
Norwood Robinson, General Counsel, AFMA
Frank Snyder, General Counsel, Bassett Furniture Co.
Carl Litsinger, J.C. Penny Company
Jesse Cannaday, Stanley Furniture Co.
Melvin Clark, Stanley Furniture Co.
Mark James, Ladd Furniture Co.
Steve McNair, Broyhill Furniture Co.
Mike Pifer, Neo-Wood Products
Paul Pottschmidt, Leggett & Platt
Terry Schnell, Ladd Furniture Co.
Jim Wall, This Eud Up Furniture Co.
George Walker, Broyhill Furniture Co.

SUMMARY OF MEETING:

The meeting was convened by Mr. O'Conner with introductions of himself and staff from the American Furniture Manufacturers Association (AFMA). He then asked for self introductions by all attendees. Mr. O'Conner proceeded by explaining that the purpose of the meeting was to obtain comments from anyone wishing to appear before the IIBBC or submit in writing for consideration by the IIBBC in revising the 1986 Voluntary Industry Bunk Bed Guidelines. He stated that a classified advertisement to announce this meeting had appeared in U.S.A. Today, Thursday, January 7, 1988 (Attachment A). He continued by saying that no one had submitted comments or requested to appear before the IIBBC today as a result of the advertisement. The meeting was turned over to Mr. Robinson who made a few statements about antitrust laws and their implication for industry representatives at the meeting. Mr. O'Conner then turned the meeting over to the CPSC representative at the meeting.

Ms. Tyrrell opened her remarks by indicating that CPSC has complied with the IIBBC's request to help publicize the meeting. She said details of the meeting had been made available in the CPSC public reading room and posted in the CPSC Public Calendar (Attachment B). She then gave a brief review of Commission activities on bunk beds which led to the formation of the IIBBC and the 1986 version of the Bunk Bed Guidelines. She commended the Committee on their work to develop the Guidelines but stated that the CPSC staff believed there was more work that needed to be done.

She reviewed for them the Commission November 5, 1987, briefing on the petition from the Consumer Federation of America (CFA) which calls for a mandatory safety standard for bunk beds, and the Commission's postponement of a decision on the petition pending a review by IIBBC of the CPSC staff's recommendations for revisions to the 1986 Guidelines.

Ms. Tyrrell noted that staff comments on the 1986 Guidelines had been forwarded to IIBBC in a letter from the Commissioners dated December 17, 1987, and trusted that all the members had been provided with a copy (Attachment C). She also reviewed the other staff recommendations that were presented to the Commission during the November 5 briefing:

- 1) that the Guidelines should be developed as a voluntary standard under the auspices of an internationally recognized voluntary standards writing organization using a consensus process to allow for participation of a more diverse segment of interested parties;
- 2) that a mechanism be created to provide for a periodic review/update of the Guidelines to reflect current state-of-the-art, technology which may contribute to new hazard patterns; and
- 3) that a mechanism be developed to alert the affected public to the existence of the Guidelines and to assure compliance with the Guidelines on a continuing basis by all manufacturers of bunk beds (AFMA members as well as non-AFMA members including importers).

She explained the advantages of these recommendations and how the voluntary standards process could achieve these recommendations.

Ms. Tyrrell stressed the fact that the work of the IIBBC was not finished when the revisions to the Guidelines had been completed. She explained that a continued high level of compliance with the Guidelines must be maintained and monitored by either IIBBC or AFMA and that the IIBBC needed to be prepared to update the Guidelines from time to time to address newly identified hazards that may have resulted from design changes, use patterns, etc. Ms. Tyrrell also stated that the bunk bed issue had received a good deal of publicity by the media and that the Commission had responded to Congressional inquiries about Commission and industry activities on bunk beds.

In response to a comment from Mr. O'Conner, Ms. Tyrrell reiterated that the Commission had not reached a decision on the CFA petition, but in rendering its decision, the Commission would consider 1) the risks of injury associated with existing bunk beds, 2) whether or not the existing Guidelines would eliminate or adequately reduce these risks, and 3) whether or not sufficient conformance with the Guidelines was likely to occur. She explained that when the Commission received the IIBBC's final version of the Guidelines, the staff would review it and provide an evaluation to the Commission for inclusion in its deliberation on the CFA petition.

Mr. O'Conner noted that there were no other persons present to give any statements to the IIBBC and recommended that the meeting be adjourned. Ms. Tyrrell asked for a discussion of the CPSC comments that had been submitted to the IIBBC while the group was convened. Mr. O'Conner stated that the CPSC comments were being considered by the IIBBC and that the Commission would hear from the IIBBC by the deadline agreed upon with the Commissioners (two-weeks after the February 9 meeting). The meeting was adjourned.

6D • THURSDAY, JANUARY 7, 1988 • USA TODAY

<p>ANNOUNCEMENTS</p> <p>NOTICES</p> <p>The Inter-Industry Bunk Bed Committee (IIBBC) will hold a public meeting at 10:00 AM, February 9, 1988, at the Greensboro Marriott in Greensboro, NC, to consider revisions to the 1986 Voluntary Industry Bunk Bed Guidelines. Anyone wishing to appear in person or have comments considered by the IIBBC, must submit such comments in writing. All such submissions to the IIBBC must be typewritten and received by Mr. Joseph Ziolkowski, IIBBC, PO Box HP-7, High Point, NC 27261, no later than January 29, 1988.</p>	<p>CAREERS</p> <p>General</p> <p>ASSEMBLERS wanted. Earn up to \$60 per day making bolts, nutty nuts, etc. Its fun, easy, and all materials furnished. Write to: Dickens & Merson, PO Box 476, East Detroit, MI 48021 or call 313-773-5236</p> <p>Sales/Marketing</p> <p>Sales/Comm. Be A Millionaire Last month top rep made \$10,000+ Exp. pd. to Mr. Lee 800-247-2444. No invest, we invest in you.</p>	<p>CAREERS</p> <p>Colleges/Universities</p> <p>CLASS ASSIGNMENT Advertise in USA TODAY'S COLLEGE & UNIVERSITY DIRECTORIES</p> <p>First Ad: February 23 Due Date: February 22</p> <p>Second Ad: June 15 Due Date: June 1</p> <p>You'll move to the head of the class when you advertise in our COLLEGE & UNIVERSITY DIRECTORIES. That's because USA Today is an educated choice for reaching 5.5 million young, upwardly mobile prospects.</p> <p>For more information call 1 800 USA TODAY</p>	<p>FINANCIAL</p> <p>Business Center</p> <p>Visa/MC Merchant RATES FROM 1.25 ALL BUSINESSES 1-800-7</p> <p>NEW IDEA? Patented or Unpatented Call The Innovation Co Washington, DC for Free 1-800-629-2828</p> <p>Thinking of an idea? Call AIM. We present ideas For free info kit, call 1-800</p> <p>MC/VISA PROCEDURE These days it's not just the</p>
<p>ADOPTIONS</p> <p>ADOPTION-LOVING couple wants to</p>	<p>SALES REPS BUILDING MATERIALS</p> <p>Manufacturer of asphalt roofing products seeking aggressive sales reps. Exp. comm. to \$2 & W. Va. Min. \$</p>		

Classified Advertisement for USA Today:

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CPSC Public Calendar

Volume XV, No. 15

Weeks of January 31 thru February 6, 1988
and February 7 thru February 13, 1988

Published January 27, 1988

IN THIS ISSUE:

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Commission Agendas	Page 4
Addendum	Page 5

Thursday, February 4 (cont.)

- * Peter Brathwaite, Office of the Chairman, and Sandra Eberle, Office of Program Management and Budget, attending the Consumer Assembly 1988 sponsored by the Consumer Federation of America and to hear discussions of various consumer issues such as toxic threats to human health and child safety; all day, The Washington Plaza Hotel, Thomas Circle, Washington, D.C. The invitation was extended by Stephen Brobeck, Executive Director, Consumer Federation of America. For additional information contact Peter Brathwaite, (301) 492-5500. Posted on Master Calendar 1/26/88. (N)

Friday, February 5

- * Dan Rumelt, Office of Information and Public Affairs, meeting with the Information and Education Subcommittee of the National Swimming Pool Safety Committee, to discuss plans for "Operation Water Watch 1988," a national drowning prevention media and public information campaign; 9:00 a.m.-5:00 p.m., O'Hare Airport Hilton, Chicago, Illinois. The meeting was requested by Barb Smith, Chairman, I & E Subcommittee. For additional information contact Dan Rumelt, (301) 492-6580. Posted on Master Calendar 1/26/88. (S)

Future

Tuesday, February 9

Elaine Tyrrell, Office of Program Management and Budget, meeting with Inter-Industry Bunk Bed Committee (IIBBC) of the American Furniture Manufacturers Association, to discuss revisions to the 1986 Voluntary Industry Bunk Bed Guidelines; 10:00 a.m., Greensboro Marriott Hotel, Greensboro, North Carolina. The meeting was requested by Kevin O'Connor, Chairman of IIBBC. For additional information contact Elaine Tyrrell, (301) 492-6554. (S) Schedule for meeting was published in USA Today on January 7, 1988. All interested parties wishing to have comments considered were requested to submit comments to Joseph Ziolkowski, IIBBC, P.O. Box HP-7, High Point, North Carolina 27261, no later than January 29, 1988.

Wednesday, February 10

Virginia White, Office of Program Management and Budget, and other staff meeting with Noel Vander, Chairman, Child-Resistant Closure Subcommittee and other members of Closure Manufacturers Association to discuss revisions to the Poison Prevention Packaging Act testing protocol; 1:00 p.m., Westwood Towers Building, Room 742. The meeting was requested by Noel Vander. For additional information contact Virginia White, (301) 492-6554. (S)

Thursday and Friday, February 11 and 12

Chairman Terrence Scanlon attending the Toy Fair sponsored by Toy Manufacturers of America (TMA); 2:00-4:00 p.m. February 11 and 10:00 a.m. February 12; 200 5th Avenue and Javits Center, New York, New York. The invitation was extended by Douglas Thomson, President, TMA. For additional information contact Ruth Galloway, (301) 492-5500. (N)

Wednesday, February 10 thru Sunday, February 14

Christine Nelson, Compliance, attending American International Toy Fair, where toy safety regulations will be discussed; Toy Center, 200 5th Avenue and Javits Convention Center, New York, New York. The invitation was extended by TMA. For additional information contact Christine Nelson, (301) 492-6400. (N)



Attachment C

U.S. CONSUMER PRODUCT SAFETY COMMISSION

WASHINGTON, D.C. 20207

December 17, 1987

Mr. Douglas L. Brackett
Executive Vice President
American Furniture Manufacturers
Association
Post Office Box HP-7
High Point, NC 27261

Dear Mr. Brackett:

As you know, the Consumer Product Safety Commission recently received a petition from the Consumer Federation of America which calls for mandatory safety standards for bunk beds. We would like to postpone a Commission decision to deny or grant the CFA petition until we have given AFMA an opportunity to review the attached CPSC staff recommendations. We would appreciate a response from you within 45 days as to your intentions with regard to these recommendations. The Commission will then schedule consideration of the CFA petition.

In addition, we would like to see some clarification of the warning statement on your current label. For example, the phrase "(g)uard-rail/mattress position and size are important" does not provide adequate guidance to a purchaser. It would be advisable to designate which sizes or positions should be used. Our staff is willing to work with you in this regard.

We commend AFMA for expeditious work on the Guidelines and we are encouraged that preliminary indications point to a high degree of adherence among your members. However, in the interests of even greater safety benefits, we would like to see the staff proposed revisions given your most serious consideration before any final decision is made on disposition of the CFA petition.

Sincerely,

Terrence Scanlon
Chairman

Carol Dawson
Vice Chairman

Anne Graham
Commissioner

Attachment
bl cc: Vice Chairman Carol Dawson
Commissioner Anne Graham

Mr. Joe Gerard
Ms. Mary Ellen Fise-

12/11/87

Voluntary Bunk Bed Safety Guidelines Staff Recommendations

There were 5 major hazard patterns which the Commission staff originally asked AFMA to address and which we believe to be most critical. At this time, one of these hazard patterns, failure of the mattress support system, is adequately addressed by the Guidelines. However, significant improvements should be made in the provisions dealing with the other four hazard patterns. The following is a discussion of the changes which we believe necessary and the rationale for each. The paragraph citations refer to those in the May 23, 1986, Guidelines.

1. Entrapment Between the Mattress and Guardrail (§3.5.4 and §3.8.2)

The Commission is aware of at least 54 incidents, including 10 deaths, of entrapment between the mattress and guardrail since 1973.

The Guidelines contain two alternative provisions to address this entrapment hazard. The first alternative, specifying a maximum opening between rigid bed structures and guardrail, is adequate ("there shall be no openings in the rigid bed structure below the lower edge of the guardrail that would permit the free passage of a 3½-inch cube in any orientation---"). However, the second alternative, specifying a maximum opening between the mattress and guardrail, is not adequate ("--- or the lower edge of the guardrail shall not be more than 1 inch from the mattress").

There are four reasons for our objections: 1) if bunk bed manufacturers do not supply mattresses with their beds, they cannot control mattress thickness/compressibility (at the January 30, 1986, meeting with the IIBBC, the staff was told that mattress thickness can vary from 2 to 9 inches), 2) a mattress supplied by the manufacturer that complies with the 1-inch space provision, uncompressed, may create a hazardous opening when compressed under the weight of a child, 3) deteriorating mattresses may become more compressible, and 4) consumers purchasing second-hand bunk beds or consumers with older bunk beds may replace the mattresses. Since there is no provision for a label on the bed with mattress size/fit requirements, and the instructions (which include mattress/foundation size) may be lost, the replacement mattress may be smaller in length, width, and thickness than the mattresses the bunk bed manufacturer intended for use on the bed.

In addition, the Guidelines contain a provision for a "Caution" label which attempts to address this hazard by stating "guardrail/mattress position and size are important." Since entrapment between mattress and guardrail can, but does not always, result in death, the proper signal word for the label is "Warning". "Caution" is only used when minor injury may result. "Danger" is only used if death will result. If there is a probability of death, "Warning" is the proper signal word.

2. Entrapment Between Bed and Wall (§3.8.2 and §3.9.5(h))

Given industry's position that the top bunk is designed for use by children over the age of six, we believe that the sentence in the Instructions at 5(h) is adequate to address the problem of older children falling from the top bunk. However, through the available incident data, we are aware of the practice of placing children younger than six years who have just outgrown a crib either in the lower bunk or in a bunk bed used in the twin configuration, with no guardrails or with only a guardrail on the side away from the wall. We are aware of at least 15 children who have died when they rolled between the bunk bed and the wall. Therefore, an additional sentence should be added recommending that when the bed is used as a child's first regular bed, a second guardrail be used between the bed and wall.

In addition, the label at §3.8.2, stating that "If not against wall, use two guardrails", gives a false sense of security that if the bed is against the wall, a second guardrail is not needed. At a minimum, this language should be consistent with that in the Instructions by modifying it to read "If upper bunk is not against wall, use two guardrails." Second, a sentence recommending use of a second guardrail between the bed and wall when the bed is used as a child's first bed (similar to that recommended for the Instructions) should be added to the label.

3. Entrapment Between the Mattress and Bed Structure (§3.3 and §3.9.3)

The Commission has identified four cases (including one death) where entrapment occurred in spaces between the mattress and bed structure.

Paragraph 3.3 in the Guidelines states that the manufacturer shall include mattress width, length, and thickness specifications in the written Instructions (that are specified in ¶3.9,3). We believe that this is inadequate for two reasons. First, although mattress widths and lengths are standardized, mattresses come in two lengths: "regular" - 74½ inches and "extra long" - 79½ inches. Without a permanent label on the bed, consumers may purchase the incorrect length mattress for their bed structure. We have reports of entrapment incidents between the mattress and end structure where the mattress was of regular length and the bed structure was of extra long length. Second, without a provision specifying a maximum dimension between the bed structure and the mattress, a large space between bed structure and mattress may occur. The Guidelines should specify that the interior size of the bed structure should not be more than 1½ inches greater than the nominal size of the mattress.

4. Entrapment/Falls Associated with Certain End Structures of Upper Bunk Beds (¶3.6.2)

The Commission is aware of at least 14 cases of entrapment, including two deaths, in bunk bed end structures.

In the Guidelines it states that there shall be no openings in the end structures of the upper bunk that would allow free passage of a cube of any dimension between 3½ and 8 inches in any orientation when the mattress and foundation are in place. Such wording would permit openings of up to 3½ inches above the mattress surface. Mattress compressibility could result in an opening even greater than 3½ inches which could present an entrapment hazard. Furthermore, an opening in the end structure capable of permitting free passage of an 8-inch cube could increase the likelihood that a child could fall from the top bunk, since a child could pass through an opening of this size.

In summary, one of the 5 hazard patterns is adequately addressed by the Guidelines. To address the other four hazard patterns, the provisions in the Guidelines should be modified as follows:

HAZARD

PROVISION

Mattress & Guardrail

¶3.5.4 Delete: "... or the lower edge of the guardrail shall not be more than 1 inch from the mattress."

¶3.8.2 Add a second permanent label which specifies mattress size and fit.

HAZARDPROVISION

Bed & Wall

¶3.8.2 To the Label, a) Change Signal word to: "Warning"; b) modify sentence to read: "If upper bunk not against wall, use two guardrails."; and c) Add: "When bed, other than upper bunk, is used as child's first regular bed, use second guardrail between bed and wall."

¶3.9.5(h) To the Instructions add the following: "Use two guardrails when the bed, in the twin configuration or as a lower bunk, is to be used as a child's first regular bed. Even when the bed is pushed against a wall, a young child may roll between the bed and wall resulting in entrapment and possible suffocation."

Mattress & Bed Structure

¶3.3 Add: "The interior size of the bed structure shall not be more than 1½ inches greater than the nominal size of the mattress."

End Structure

¶3.6.2 Modify to read: "There shall be no openings in the rigid end structure of the upper bunk that would permit the free passage of a 3½-inch cube in any orientation."

The provisions discussed above are the ones which we believe to be most critical. There are also a number of other provisions which could be modified or improved. We would like to bring these to your attention so that modifications to these provisions can be considered.

- Pages 1 and 2 - The term "guidelines" appears in both the singular and plural form. One form of the word should be chosen and used consistently throughout the document.
- Page 1, Sec. 2 - The term "standard" is used instead of "guideline(s)". They are not interchangeable terms. The word "Guideline(s)" should be used for this document.
- Page 1, ¶ 2.5 - The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with ¶ 2.1

- Page 2, ¶ 3.1 - This paragraph should reference the Standard for the Flammability of Mattresses and Mattress Pads, 16 C.F.R. Part 1632. During inspections of bunk bed manufacturers conducted by Commission staff, it was noted that a number of the manufacturers were manufacturing mattresses for their bunk beds. Approximately half a dozen firms were not in compliance with this mandatory standard.
- Page 2, ¶3.4.2 - Bolt - On Side Rails. The minimum spacing for side rail attachment bolts was changed, and the Commission staff was not been informed of the reason for this change. In the 1979 Guidelines (later adopted as ANSI Standard Z357.1) the minimum bolt spacing was 4 inches. This was reduced to 2 inches in the December 1985 version of the Guidelines and is 1.5 inches in the current version. The staff believes that a 1.5 inch spacing could be inadequate for certain types of bolt-on side rails.
- Page 3, ¶3.6.1 - Bed End Structure. We prefer the wording or this paragraph that was submitted to AFMA in the staff's February 11, 1986, memorandum: "The upper edge of the upper bunk bed structures shall be at least 5 inches above the sleeping surface when a mattress and foundation of the size and thickness specified by the manufacturer's instructions is used on the upper bunk. Portions of the end structure that are within 6 inches of the bed posts are exempt from this requirement."
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¶ 3.7.2 Ladders. The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with that in ¶ 2.1.
- Page 5,
¶ 3.9,5(e) - Safety Precautions. This sentence needs to be rewritten. The current version implies that one can jump under the bed.

**American ★ Furniture
Manufacturers Association**
POST OFFICE BOX HP-7 HIGH POINT NORTH CAROLINA 27261 919/884-5000

February 18, 1988

The Honorable Terrence M. Scanlon
U. S. Consumer Product Safety Commission
5401 Westbard Avenue
Bethesda, MD 20207

Dear Chairman Scanlon:

The Inter-Industry Bunk Bed Committee (IIBBC) met on February 9, 1988 to consider proposed revisions to the 1986 Voluntary Industry Bunk Bed Guidelines, including those suggested by staff of the U. S. Consumer Product Safety Commission (CPSC) and the Consumer Federation of America (CFA). For the purposes of the February 9, 1988 meeting, the IIBBC considered recommendations submitted by the CPSC directly to the IIBBC, and previous CFA recommendations to the CPSC.

The outcome of the IIBBC deliberations is set forth in the attachment. We believe that the 1986 Voluntary Industry Bunk Bed Guidelines were sufficient to address the major hazard patterns noted by the CPSC---especially when one considers that, overall, bunk bed injuries were less severe than the average for all consumer products covered by the CPSC's National Emergency Surveillance System (NEISS). However, you will note that the IIBBC accepted in full or in large part practically every suggested change to the 1986 Voluntary Guidelines. In fact, the IIBBC went further than requested in several areas.

The IIBBC believes the Commission had sufficient information to deny the CFA petition prior to the 1988 revisions (please note the October 19, 1987 letter from Douglas L. Brackett to the full Commission on this point). The 1988 changes provide added weight for such a decision. Consequently, we urge the Commission to deny the CFA petition.

We expect bunk bed manufacturers to be in substantial compliance with the 1988 Voluntary Industry Bunk Bed Guidelines by the April, 1989 National Furniture Market. The lead time will allow the furniture industry to adjust to the revisions.

As a standing committee, the IIBBC will actively publicize the 1988 IIBBC Guidelines. Of course, we will look to the CPSC and other interested parties in assisting us in this endeavor.

Sincerely,



Kevin O'Connor

Enclosure

cc: Leonard DeFiore, Executive Director

**American  Furniture
Manufacturers Association**

POST OFFICE BOX 1117 HIGH POINT NORTH CAROLINA 27261 919/884-3000

February 11, 1988

TO: Inter-Industry Bunk Bed Committee

FROM: Kevin O'Connor - Chairman

SUBJECT: Results of IIBBC Meeting, February 9, 1988, Marriott Hotel,
Greensboro, North Carolina

Attached for your IMMEDIATE ATTENTION AND REVIEW is a chart setting forth the revisions to the Voluntary Bunk Bed Safety Guidelines which were agreed upon in our meeting of February 9, 1988, at the Marriott Hotel, Greensboro, North Carolina. There are both technical and editorial revisions that have been made and I urge you to review them closely.

We have pledged to respond by February 23 to the U. S. Consumer Product Safety Commission (CPSC) with the 1988 revisions to the 1986 Voluntary Bunk Bed Safety Guidelines. It is essential, given the potential adverse publicity to both the bunk bed industry and the entire furniture industry, that this commitment be kept. Further, I would be remiss if I failed to note that without your companies full support of these revised guidelines, the industry faces the likelihood of mandatory regulation of bunk beds.

If you have any questions or comments, please contact Joe Ziolkowski of the AFMA staff.

D R A F T

Proposed New Bunk Bed Label



WARNING

To help prevent serious injuries from entrapment or falls:

When centered, mattress must be no more than one inch at any point from the interior bed structure.

Use guardrails on both sides of upper bunk.

Use the ladder for leaving and entering upper bunk.

Prohibit children under 6 years on upper bunk.

Ensure all connectors are tight.

Prohibit horseplay on or under bed (s).

Follow and keep written instructions with this bed.

DO NOT REMOVE THIS LABEL

INTER-INDUSTRY BUNK BED COMMITTEE (IIBBC)
BUNK BED SUMMARY CHART

Requests

Entrapment between Mattress and Bed Structure (3.3, 3.8.2 and 3.9.3)

3.3 Add: "The interior size of the bed structure shall not be more than 1 1/2 inches greater than the nominal size of the mattress."

(CPSC)*
Add second permanent label which specifies mattress size and fit.

Current IIBBC Guidelines

3.3 Mattress and Foundation Size and Fit. Pursuant to the provisions of 3.9 "Instructional literature" the manufacturer shall include in the instructional literature specifications as to the width, length, and thickness of the mattress and foundation that must be used with the particular bunk bed to which the instructional literature relates.

IIBBC Action

Add to Label (3.8.2): When centered, mattress must be no more than one inch at any point from the interior bed structure.

Add to 3.3: "The bunk bed must be constructed to allow a nominal-sized mattress (see, for example, American National Standards Institute (ANSI) Z 357.1 - 1981) when centered, to fit within three-quarters of an inch from the interior bed structure, so that a space of no greater than one-and-one-half inches can be created when the nominal-sized mattress (see, for example, ANSI Z 357.1 - 1981) is moved in any horizontal direction within the interior bed structure."

Add to 3.9.3: "SIZE OF MATTRESS AND FOUNDATION - ... Note that, when centered, mattress must be no more than one inch at any point from the interior bed structure to help prevent serious injuries from entrapment or falls."

Revise 3.9.5:

3.9.5 Safety Precautions - The instructions shall include the following:

- b) When centered, mattress must be no more than one inch at any point from the interior bed structure to help prevent serious injuries from entrapment or falls.

Add new sections:

2.1 Bed Structure - Furniture parts assembled for the purpose of providing a sleeping environment.

2.11 Bed End Structure - (no change)

2.12 Interior Bed Structure (solely for the purpose of determining horizontal mattress fit requirements) - the rectangular plane formed by the side rails and the bed end structures, not including the support system.

* Consumer Product Safety Commission

Requests

Entrapment between Bed and Wall
1.8.2 and 3.9.5 (h1)

To the label: a) Change signal word to "Warning"; b) Add "To help prevent serious injuries from entrapment or falls;" c) Add "Use two guardrails on both sides of bed when:

- Upper bunk is not against wall.

- Bed is used as child's first regular bed. (CPSC)

To the label: a) Change signal word to "WARNING"; b) Add "Failure to follow these warnings could result in death or serious injury."; c) Add "If the upper bunk is not used against the wall, two guardrails should be used AND if the bed is used as a child's first bed two guardrails should be used." (CFA)

To the instructions add the following:

"Use two guardrails when the bed, in the twin configuration or as a lower bunk, is to be used as a child's first regular bed. Even when the bed is pushed against a wall, a young child may roll between the bed and a wall resulting in entrapment and possible suffocation. (CPSC)

Current IIBRC Guidelines

1.8.2 (label)

- a) Caution.
- b) If not against wall use two guardrails.
- c) (none)

3.9.5 (h) "Use two guardrails on the upper bunk if the side of the bunk bed is located other than against a wall.

3.5.1 (Guardrail): A guardrail must accompany any bed in which the underside of the foundation is over 35 inches from the floor. A manufacturer shall offer a second guardrail as an optional accessory. Guardrails may be separate from or integral with the ladder.

IIBRC Action

Add to label: (3.8.2) 

- Change "CAUTION" to "WARNING".

- Add "To help prevent serious injuries from entrapment or falls:"

- Use guardrails on both sides of upper bunk.

Revise 3.5.1: (Guardrail) - "Two guardrails must accompany any bed in which the underside of the foundation is over 35 inches from the floor. Guardrails may be separate from or integral with the ladder."

Change "guardrail" to "guardrails" when appropriate throughout Guidelines.

Requests

Page 5, 3.9.5(e): Safety Precautions.
This sentence needs to be rewritten.
The current version implies that one
can jump under the bed. (CPSC)

Current IIBBC Guidelines

3.9.5 (e): "Do not allow
horseplay or jumping on or
under the bed."
3.8.2: Prohibit horseplay on
or under bed.

IIBBC Action

Revise 3.9.5 (e):
e) Do not allow horseplay on or
under the bed, and prohibit
jumping on the bed.
Revise 3.8.2 (label): "Prohibit
horseplay on or under bed(s)."

Request

Sections 3.8.2 and 3.9.5 should be amended to prohibit the use of water mattresses or sleep flotation mattresses on the top bunk. (CPA)

Current IIBPC Guidelines

IIBPC Action

Revise 3.9.5 (1)

1) The use of water mattresses or sleep flotation mattresses on the upper bunk is prohibited.

Requests

End Structure (3.6.2)

Modify to read: "There shall be no openings in the rigid end structure of the upper bunk that would permit the free passage of a 3 1/2-inch cube in any orientation." (CPSC)

Current IBRC Guidelines

3.6.2 There shall be no openings in the end structures of the upper bunk that would allow the free passage of a cube of any dimension between 3 1/2 inches and 8 inches in any orientation when the recommended mattress and foundation are in place. End structure openings of the upper bunk which permit free passage of an 8 inch or larger cube, or a 3 1/2 inch or smaller cube are acceptable.

IBRC Action

Revise 3.6.2: "There shall be no openings in the rigid end structure of the upper bunk that would permit the free passage of a 3 1/2 inch cube in any orientation."

Requests
Pages 1 and 2: The term "guidelines" appears in both the singular and plural form. One form of the word should be chosen and used consistently throughout the document. (CPSC)

Current IBRC Guidelines

IBRC Action
The term "guidelines" will be used throughout the document.

Requests

Attachment between the Mattress and
Guardrail (3.5.4 and 3.8.2)

Delete "... of the lower edge of
the guardrail shall not be more
than 1 inch from the mattress."
(CPSC) (CFA)*

Current IIRBC Guidelines

3.8.2 (label)

3.5.4 "There shall be no
openings in the rigid bed
structure below the lower edge
of the guardrail that would
permit the free passage of a
3/2 inch cube in any orien-
tation or the lower edge of the
guardrail shall not be more
than 1 inch from the mattress.
These requirements shall be
maintained when a lateral force
of 33 lbf is applied to the
center of the guardrail in an
outward direction."

IIRBC Action

Delete from 3.5.4: "... of the
lower edge of the guardrail shall
not be more than one inch from
the mattress."

* Consumer Federation of America

Requests

Page 1, section 2: The term "standard" is used instead of "guideline(s)". They are NOT interchangeable terms. The word "Guideline(s)" should be used for this document. (CPSC)

Current LIBRC Guidelines

LIBRC Action

The term "guidelines" will be substituted for the term "standard" throughout the document.

Requests

Page 1, 2.5: The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with 2.1. (CFSC)

Current IIBNC Guidelines

2.5 Side Rail - the rail attached to a headboard and footboard to which the foundation support system is fastened.

IIBNC Action

Revise 2.5: "Side Rail - the rail attached to the bed end structure to which the foundation support system is fastened."

The term "bed end structure" shall replace the terms "headboard and footboard" throughout the document.

Requests

Page 2, 3.1: This paragraph should reference the Standard for the Flammability of Mattresses and Mattress Pads, 15 CFR Part 1632. During inspections of bunk bed manufacturers conducted by Commission staff, it was noted that a number of manufacturers were manufacturing mattresses for their bunk beds. Approximately half a dozen firms were not in compliance with this mandatory standard. (CPSC)

Current IIBPC Guidelines

IIBPC Action

Add to 3.1: "... 15 CFR Part 1632 (Flammability of Mattress and Mattress Pads), ..."

Requests

Page 3, 3.6.1: Bed End Structure. We prefer the wording of this paragraph that was submitted to AFHA in the staff's February 11, 1986 memorandum: "The upper edge of the upper bunk bed structures shall be at least 5 inches above the sleeping surface when a mattress and foundation of the size and thickness specified by the manufacturer's instructions is used on the upper bunk. Portions of the end structure that are within 6 inches of the bed posts are exempt from this requirement." (CPSC)

Current IJBRC Guidelines

3.6.1: The upper edge of the upper bunk end structure for at least 50% of the distance between the two posts at the head and the foot of the upper bunk shall be at least 5 inches above the sleeping surface when a mattress and foundation of the size and thickness specified by the manufacturer's instructional literature is used on the upper bunk.

IJBRC Action

Action deferred at this time.

Requests

Pages 3 and 4, 3.7.1 and 3.7.2:
Ladders. The term "bed end structure" should be substituted for the words "headboard" and "footboard" to keep the language consistent with that in 2.1. (CPSC)

Current IIRBC Guidelines

IIRBC Action

Revise 3.7.1 and 3.7.2: Substitute the term "bed end structure" for the words "headboard" and "footboard" wherever they appear in the Guidelines.

Requests

Need to revise 3.4.1. Support System language to provide for a minimum space between cross-members to prevent entrapment hazard. (CFA)

Current IBBC Guidelines

3.4.1 Support System - The support system shall confine the horizontal position of the mattress and the foundation and shall prohibit the mattress and foundation from falling into the clearance over the lower bunk or to the floor when the mattress or foundation is manipulated. The support system shall not be capable of being dislodged without the release of positive fastening devices or the use of hand tools. In the event cross-members are utilized, a minimum of two per bed are required.

IBBC Action

Add to 3.4.1: "If more than two cross-members are utilized, they shall be spaced so that no gap shall be smaller than eight inches will be created between the cross-members or between the cross-members and the bed end structures."

Requests

Language in 3.7.1 may be interpreted to indicate that ladders are optional. (CFA)

Rung spacing of up to 12 or 16 inches in ladders provides too much vertical space for children. Optimum adult rung spacing is between 11 and 12 inches. (CFA)

Current IIRBC Guidelines

3.7.1 (ladders) - A lean-on (slanted) or hang-on (vertical) ladder may be supplied with each set of bunk beds or the ladder may be incorporated as part of the headboard and footboard of the bed. The ladder may be separate from or integral with the guardrail. The ladder bracket shall be designed to prevent inadvertent disengagement or repositioning or falling while in use.

3.7.2 (ladders) - The width of the ladder shall be no less than 12 inches measured from the outside of the stiles. Vertical spacing of ladder steps shall be no greater than 12 inches. When head or footboards are used on ladders, vertical spacing may be up to 16 inches.

3.8.2 (label): "Always use guardrail and ladder."

IIRBC Action

Add to 3.7:

- change "may" to "will" in two places in the first sentence of 3.7.1, and replace "headboard or footboard" with bed end structure.

Add 3.9.5 (e): Always use the ladder for entering and leaving the upper bunk.

Revise lettering for safety precautions in 3.9.5.

3.8.2 (label): "Use the ladder for entering and leaving upper bunk."

Action deferred on rung spacing issue.

Requests

Signal word "WARNING" should be 3/16 inch high and the remainder of the text should be in letters not less than 1/8 inch high. (CFA)

Current IIBC Guidelines

IIBC Action

Add to 1.8.2: "The "WARNING" statement on the label will be composed of letters no less than three-sixteenths of an inch in height, and will be entirely capitalized, and will be entirely in bold face. The other letters on the label will be no less than one-eighth of an inch in height, and will not be in boldface. The "DO NOT REMOVE THIS LABEL" statement will be in letters no less than one-eighth of an inch in height, and will be entirely in boldface."

Requests

Add an introduction to both the Voluntary Bunk Bed Safety Guidelines and to the Instructions to explain the reason for the guidelines. (CPSC)

Current IIBRC Guidelines

IIBRC Action

Add to Guidelines and Instructions

INTRODUCTION

These consumer product safety guidelines address the bunk bed accidents that were identified by the U.S. Consumer Product Safety Commission (CPSC).

Overall, bunk bed related injuries are less severe than the average for all National Electronic Injury Surveillance System (NEISS) product-related injuries, with significantly lower hospitalization rates. The majority of the incidents occurred in the 2-5 year age group, and the majority of the deaths involved children one year of age or less.

These consumer safety guidelines do not cover bunk beds that are either blatantly misused or are used in a careless manner that disregards the warnings and safety instructions that are provided with each bunk bed.

Requests
Specify the implementation date for
the 1988 revision of the Voluntary
Bunk Bed Safety Guidelines. (AFMA)

Current IIBRC Guideline

IIBRC Action
Add new section 4.0
The 1988 revision of the Voluntary
Bunk Bed Safety Guidelines will
be implemented no later than the
April, 1989 National Furniture
Market.

Memorandum

TO : Elaine A. Tyrrell, EX-PB
Through: Dr. Robert D. Verbalen, AED, EP
FROM : Through: James E. Bradley, Director, EPHF
Shelley Waters Deppa, EPHF *SWD*

DATE: APR 18 1988

SUBJECT: Evaluation of Revised Bunk Bed Industry Guidelines

Per your request, we have evaluated the revised bunk bed industry safety Guidelines. The staff identified four major hazard patterns which we believed were not adequately addressed by the original Guidelines: entrapment between mattress and guardrail, entrapment between bed and wall, entrapment between mattress and bed structure, and entrapment within or falls from upper bunk end structures. The Commissioners forwarded the staff's recommendations for addressing these hazard patterns and requested a response from the bunk bed industry. We have evaluated how well the revised Guidelines address these hazard patterns.

1. Entrapment between mattress and guardrail

In our opinion, the revised Guidelines have corrected the most important inadequacy by eliminating the alternative of relying on the mattress not to be more than one inch from the guardrail. While the revision did not incorporate the staff's other recommendation, to specify mattress thickness on a label, it is now immaterial to this hazard pattern.

2. Entrapment between bed and wall

The revised Guidelines have adequately addressed entrapment between top bunk and wall by requiring two guardrails to accompany every top bunk and by strengthening the warning label to state that guardrails should be used on both sides of upper bunk. To be consistent, the safety precautions in the instructions dealing with entrapment between upper bunk and wall (3.9.5(h)) should be modified accordingly.

The revision has not addressed entrapment between bottom bunk and wall, as the staff's recommendation was not adopted to add statements to the label and instructions warning consumers of this hazard pattern.

In our opinion, the revised guidelines have partially addressed entrapment between a bed used in the twin configuration and wall. By requiring two guardrails, the revised Guidelines may have alleviated the false perception that it is safe for babies to sleep in a one-guardrail bed pushed against a wall. However, parents may not use a guardrail between bed and wall since they do not recognize the bed/wall entrapment hazard.

Therefore, we believe it would have been more effective also to include the staff's recommended warning about this hazard pattern on the label and in the instructions.

3. Entrapment between mattress and bed structure

The revised guidelines have addressed part of this hazard pattern by specifying a maximum dimension between mattress and bed structure perimeters.

However, the revision would not cover the situation in which a consumer purchases a regular-length mattress for an extra-long bed structure, since the guidelines did not incorporate the staff's recommendation to specify mattress length on a label. Instead, the following statement was added to the label and instructions: "When centered, mattress must be no more than one inch at any point from the interior bed structure ..." In theory, if a consumer is purchasing the bunk bed and mattresses from the same department at the same time, and if both components are on the sales floor, then a consumer may be able to check the mattress/bed structure fit per the label. However, this comparison is not always possible. For instance, bunk beds are often sold in an unassembled state and without mattresses. In addition, consumers purchasing second-hand bunk beds or consumers with older bunk beds may purchase new mattresses. It would have been more effective to specify on a label whether the bunk bed requires regular or extra-long mattresses.

4. Entrapment within or falls from upper bunk end structures

This hazard pattern has been adequately addressed, as the staff's recommendation was incorporated into the revised Guidelines.

Conclusion

The revised bunk bed industry safety guidelines are a great improvement over the previous version in addressing the four major hazard patterns identified by the staff. We believe the revision has adequately addressed the two hazard patterns, entrapment between mattress and guardrail, and entrapment within or falls from upper bunk bed end structures. While the provisions for the other two hazard patterns have been improved, we believe they would have been even more effective had the staff's suggested wording been adopted for the label and instructions.

F

UNITED STATES GOVERNMENT

MEMORANDUM

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207
April 13, 1988

TO : Elaine Tyrrell, EXPM
Through: James I. Price, Director, ESMT
FROM : John Preston, ESMT *JP*

SUBJECT: ES Comments on 1988 Revisions to Voluntary Bunk Bed
Safety Guidelines.

In response to your request, we have reviewed the revisions to the subject guidelines contained in a "Bunk Bed Summary Chart" attached to a February 18, 1988 letter to the Commission from Kevin O'Connor, chairman of the Inter-Industry Bunk Bed Committee (IIBBC). Our comments on these revisions follow.

Page numbers refer to those pages of the Bunk Bed Summary Chart containing the revisions and the paragraph numbers correspond to the paragraph numbers in the safety guidelines.

Page 1, 3.8.2 - Labeling.

CPSC staff suggested that the mattress size and thickness should be stated on the bed's warning label. The rationale for this suggestion was: 1) Paragraphs 3.5.3, 3.5.4, and 3.6.2 of the 1986 guidelines all contained dimensional requirements that were related to the height of the sleeping surface of the mattress with respect to the bed structure, and 2) entrapment incidents have occurred on bunk beds that required twin extra long mattresses but were equipped with standard twin size mattresses.

The IIBBC has responded to the CPSC staff request by adding to the label a statement that, when the mattress is centered on the bed, it should be no more than 1 inch at any point from the interior bed structure. However, the revision does not require information on the label concerning the mattress thickness. Since no CPSC staff attended the IIBBC meeting at which discussion on this labeling revision took place, we are not aware of the rationale for their refusal to accept the wording of the CPSC staff suggestion.

In our opinion, the IIBBC revision is likely to be less effective than the CPSC staff suggestion. For example, rather than specifying the mattress size (twin or twin extra long), the label specifies a maximum gap between mattress and bed structure. Therefore, the interior dimensions of the bed structure must be determined to identify the correct mattress size. Furthermore, the label does not identify the mattress thickness. In the revised guidelines, entrapment requirements are no longer dependent on mattress thickness but paragraph 3.5.3 still contains a dimensional requirement related to mattress thickness. This addresses falls due to insufficient height of a guardrail above the mattress surface.

Page 2

We suggest that the IIBBC be contacted and asked why this revision did not require mattress thickness information on the label.

Page 1, 3.3 - Mattress And Foundation Size And Fit.

CPSC staff suggested that the interior size of the bed structure should not be more than 1-1/2 inches greater than the nominal mattress size as specified in the voluntary standard for Bedding Products and Components, ANSI Z357.1. The rationale for this suggestion was the same as for 3.8.2 above. The IIBBC has acted on this suggestion by adding language to paragraph 3.3. However, the IIBBC's choice of language for the addition differs from that suggested by CPSC staff and, in our opinion, is very confusing. For example, it contains two references to ANSI Z357.1 and contains dual dimensional requirements. We also believe that the meaning of the terms "nominal-sized mattress" is less clear than "nominal size of the mattress", which is an accepted engineering expression, and was suggested by CPSC. Again, we are not aware of the rationale for the IIBBC's choice of wording for this addition to paragraph 3.3.

Page 1, 3.9.3 - Size Of Mattress And Foundation.

This change was not requested by CPSC staff. Since the size (width, length and thickness) of the mattress is already required to be in the instructions, the addition may not add anything in terms of safety. In fact, it may confuse the consumer into thinking that the mattress must always be centered within the bed structure to prevent injuries from entrapment and falls.

Page 1, 3.9.5 - Safety Precautions.

This is a repeat of the statement added to 3.9.3. We question why it is necessary to have it appear twice in the instructions.

Page 1, 2.1 - Bed Structure

No comment. This is not a safety related requirement.

Page 1, 2.11 - Bed End Structure

The only change to this paragraph is its number which appears to be incorrect. It should be 2.1.1 rather than 2.11.

Page 1, 2.12 - Interior Bed Structure.

We do not believe that the language proposed for this definition is at all clear. It should specify that the dimensions (for mattress fit) are measured to the interior face of the side rails and bed end structure in the plane of the mattress support. In addition, the paragraph number should be 2.1.2 rather than 2.12.

Our suggested language for this definition follows:

2.1.2 Interior Bed Structure - The dimensions (length and width) between the interior faces of the side rails and bed end structures in the plane of the mattress support.

Page 2, 3.5.4 - Guardrail.

Both CPSC staff and the Consumer Federation of America (CFA) had objected to the part of this provision that would permit a bunk bed to meet the guardrail requirement addressing entrapment if the space between the sleeping surface of the mattress and lower edge of the guardrail is no more than 1 inch. The IIBEC has responded affirmatively and removed this part of the provision. We consider this revision to be a significant improvement.

Page 3, 3.8.2 - Labeling and 3.5.1 - Guardrail.

CPSC staff had requested that the safety information label be changed to the format recommended by an ANSI standard for warning labels. In addition, to address entrapment between the bed and a wall, the staff requested the addition of a statement to inform owners that two guardrails should be used if the bed is to be used as a child's first regular bed.

The IIBEC has responded to the staff request by drafting a new label which does have the format of the ANSI standard. However, rather than adopt the staff's suggestion to add that two guardrails should be used if the bed is to be used as a child's first regular bed, the IIBEC has added "Use guardrails on both sides of upper bunk". We believe that this change has both a plus and a minus value on the safety of a bunk bed.

Our December 16, 1985 memo (co-authored by Shelley Deppa) responded to your request for comments on a draft of the bunk bed safety guidelines. This memo stated that "manufacturers should be required to offer a second guardrail as an option but we would prefer that a second guardrail be mandatory." This change to the label, warning users of the need to use a guardrail on each side of the top bunk, together with the change to paragraph 3.5.1, which requires manufacturers to provide two guardrails for the top bunk,

is commendable and is satisfactory to address entrapment between a top bunk and wall. We believe this change will also reduce the likelihood of entrapment between the bed and wall when a bunk bed is used as a separate twin bed. However, the staff concern was that the lower unit of a bunk bed may be used as a child's first regular bed since the label warns against permitting children under 6 on the upper berth. Staff had requested a change to both the warning label and to the instructional literature to alert consumers to the bed/wall entrapment hazard. While it is possible that consumers may well recognize the hazard of falls from the side of a lower bunk that is away from the wall, we do not believe that the hazard of entrapment between the bed and a wall is self evident. For consistency, these same comments apply to paragraph 3.9.5(h) in the Safety Precautions of the instructions.

Page 4, 3.9.5(e) - Safety Precautions.

Staff had pointed out an editorial error in 3.9.5(e) of the safety precautions that are contained in the instructions that must accompany bunk beds. Accordingly, the IIBBC has corrected this error.

Page 5, 3.8.2. & 3.9.5 - Labeling and Safety Precautions

Another change to the warning label (3.8.2) was suggested by CFA and requested an addition to alert users that water mattresses should not be used on the upper bunk. Presumably, this request was intended to address the possibility of collapse due to the extreme weight of water mattresses. CFA also suggested that this alert should be added to the instructions (3.9.5). The IIBBC has responded by adding such a warning to the instructions only. In our opinion, this may be satisfactory to address the potential hazard.

Page 6, 3.6.2 - End Structure.

Staff had suggested that the provision addressing entrapment in the bed end structure should be similar to the entrapment provision for side guardrails. In other words, openings in the rigid end structure of the upper bunk should prevent passage of a 3-1/2 inch cube. The IIBBC has responded by adopting the CPSC staff suggestion.

Pages 7, 8, & 9, - Editorial Comments

Staff had made several editorial comments concerning uniform language. For example, the terms "Guideline", "Guidelines", and "Standard" were all used to describe the 1986 document. IIBBC now uses "Guidelines" throughout. Also, the terms "bed end structure" were used interchangeably with "headboard and footboard". The term "bed end structure" is now used throughout.

Page 5

Page 10, 3.1 - References to Federal Regulations.

CPSC staff had requested the addition of a reference to the CPSC mattress flammability regulation (16 CFR Part 1632). IIBBC has responded affirmatively to the request by adding this reference to paragraph 3.1.

Page 11, 3.6.1 - Bed End Structure.

Staff had stated a preference for a requirement to address falls from the end of the upper bunk that it had previously suggested to IIBBC (Preston/Deppa memo of February 11, 1986). The IIBBC has deferred action on this issue. Since this was not considered to be a high priority item, we do not believe it merits immediate action by the Commission.

Page 12, 3.7 - Ladders.

This concerned the editorial changes previously discussed (Pages 7, 8, & 9 of IIBBC summary chart).

Page 13, 3.4.1 - Support System.

CFA had suggested a change to this paragraph to address entrapment between cross-members used to support the mattress and foundation. Such an incident of entrapment had been reported in September 1987. IIBBC has responded by requiring a spacing of no less than 8 inches if more than 2 cross-members are used.

We are aware of a number of imported bunk beds that have multiple cross members spaced less than 8 inches apart but do not present an entrapment hazard because the cross-member spacing is generally no more than about 3 inches. The revised guidelines would eliminate such beds. We suggest that the addition to 3.4.1 be changed as follows:

"If more than two cross-members are utilized, they shall be spaced so that the openings between adjacent cross-members and between cross-members and the bed end structures shall either prevent passage of a 3-1/2 inch cube in any orientation or shall permit free passage of an 8 inch cube."

Page 14, 3.7.1 - Ladders

CFA had noted that the language of this provision made it appear that ladders were optional. Furthermore, both CFA and CPSC staff (at 1/30/86 IIBBC meeting) had commented that the rung spacing for all ladders should never exceed 12 inches.

IIBBC has responded by changing the language of 3.7.1 (the word "may" changed to "will") to make it clear that ladders are not optional. However, the committee deferred action on the ladder rung spacing issue. While it seems logical that bunk bed ladder rungs (commonly used by children) should not be permitted to be spaced further apart than ladders intended for adults (12 inches maximum), CPSC bunk bed accident data does not support a change to the current ladder rung spacing provision. We note that IIBBC has strengthened the warnings concerning ladders in both the label requirements (3.8.2) and the instructional literature (3.9.5(e)).

Page 15, 3.8.2 - Labeling.

This change has already been discussed.

PAGE 16, - Introduction.

CPSC staff had suggested that the bunk bed safety guidelines should contain an introduction that outlines why they are needed. Examples of introductions from several ASTM voluntary standards for juvenile products were forwarded to AFMA for their consideration (letter of 1/26/88 from Elaine Tyrrell). The IIBBC has revised the introduction to contain some elements of introductions in ASTM standards but has included a paragraph (2nd paragraph) that we believe is totally unacceptable. The language in this paragraph appears to be a deliberate attempt to minimize the hazards associated with bunk beds. Deaths and injuries associated with bunk beds actually exceed the figures for some other juvenile products for which their manufacturers have seen fit to develop voluntary **safety standards**. Attachment II to this memo is a draft of an introduction for the bunk bed safety guidelines that more accurately states the reason for the publication of these guidelines. We suggest that the IIBBC be asked to consider this draft as a replacement for their introduction on Page 16 of the summary chart.

Page 17, - Implementation Date

It is not clear what is meant by the statement in new Section 4.0. We assume that it is intended to convey that those bunk bed manufacturers who are members of AFMA and who elect to follow the revised guidelines will have their products in conformance with the provisions by the time of the April 1989 National Furniture Market. This appears to be a reasonable time frame for the changes that may have to be made to some beds. On the other hand, it does not appear to be a necessary part of the guidelines.

As with voluntary standards, these are voluntary guidelines and manufacturers may not elect to observe the provisions they contain.

Furthermore, many manufacturers of bunk beds who are not members of AFMA, may be unaware of the existence of the guidelines. We believe it is vital that the Commission survey bunk bed manufacturers to determine the extent to which they will be following the provisions. Such a survey was conducted when a voluntary standard for toy chests was first published and a surprising number of manufacturers of such products were found to be unaware of the standard's existence. We continue to be of the opinion that the bunk bed guidelines would be more effective if they were to be published as a voluntary standard.

Summary.

Attachment 1 to this memo, summarizes our opinion on the acceptability of the provisions in the bunk bed voluntary guidelines that were revised by the IIBBC in February 1988. For the most part, the changes made by the committee are a positive step forward in satisfying the concerns previously expressed by CPSC staff. However, it remains to be seen how many bunk bed manufacturers will follow the provisions in the revised guidelines. We are still of the opinion that the guidelines would be more readily obtainable, and therefore, more effective, if they were published as a bona-fide voluntary standard.

We are also concerned that the continued existence of provisions addressing bunk bed safety in ANSI Z357.1, the voluntary standard for Bedding Products and Components, may be believed by some manufacturers to be the only existing provisions addressing the safety of bunk beds. It would be our preference to see the IIBBC revised safety guidelines replace the bunk bed safety provisions that are currently in this standard.

Attachments

ATTACHMENT I

SUMMARY OF ES COMMENTS ON 1988 REVISIONS TO VOLUNTARY BUNK BED SAFETY GUIDELINES

The following is a summary of our evaluation of the revisions made by the IIBBC to the 1986 safety guidelines. Page numbers refer to those pages of the IIBBC Bunk Bed Summary Chart on which the revisions are stated.

Page 1

- 3.8.2 Mattress size information on warning label. Not Acceptable. Mattress thickness omitted.
- 3.3 Interior size of bunk bed structure. Acceptable, but language is confusing.
- 3.9.3 Not requested by CPSC staff.
- 3.9.5 Not requested by CPSC staff.
- 2.1 Not requested by CPSC staff.
- 2.11 Not requested by CPSC staff but should be numbered 2.1.1.
- 2.12. Definition of Interior Bed Structure. Not acceptable and should be numbered 2.1.2

Page 2.

- 3.5.4 Entrapment between mattress and guardrail. Acceptable.

Page 3.

- 3.5.1 Requirement for two guardrails. Acceptable
- 3.8.2 Warning concerning entrapment between bed and wall. Not acceptable. Does not address use of lower bunk by a young child (also applies to 3.9.5).

Page 4.

- 3.9.5 Editorial change to safety precautions in instructions. Acceptable.

Page 5.

3.8.2 Not requested by CPSC staff.

Page 6.

3.6.2 Entrapment in bed end structure. Acceptable.

Pages 7, 8, 9, & 12.

Editorial comments to several paragraphs, all acceptable.

Page 10.

3.1 Add reference to CPSC mattress flammability regulation. Acceptable.

Page 11.

3.6.1 Falls from bed end structure. Action deferred by IIBBC, Not considered high priority by CPSC staff.

Page 13.

3.4.1 Entrapment in mattress support system. Not requested by CPSC staff but this revision may eliminate some non-hazardous mattress support system designs.

Page 14.

3.7.1 Not requested by CPSC staff.

Page 15.

3.8.2 Not requested by CPSC staff.

Page 16.

Introduction. Not acceptable (see Attachment II for new draft introduction).

Page 17.

4.0 Conformance to guidelines. Suggest CA follow-up to determine the extent of conformance to the guidelines.

Attachment II

INTRODUCTION FOR IIBBC BUNK BED SAFETY GUIDELINES

The following is a first draft of a suggested introduction for the bunk bed safety guidelines that were revised by the IIBBC in February 1988.

These voluntary guidelines address bunk bed accidents that were identified by the Consumer Product Safety Commission (CPSC).

Over the last 3 years, CPSC estimates that an average of 22,000 children under the age of 15 years received hospital emergency room treatment for injuries associated with bunk beds. Most of these injuries were fairly minor and occurred when children fell from the beds. However, there are other less obvious potentially serious hazards associated with bunk beds. Since 1973, CPSC knows of 54 incidents, including 12 deaths which occurred when children became entrapped between the mattress and guardrail and 15 deaths resulted when young children were entrapped between the bed and a wall. CPSC is also aware of 4 deaths due to collapse of the mattress and foundation and 18 incidents, including 3 deaths, due to entrapment either between mattress and bed structure or in the bed end structure.

These safety guidelines are written within the current state-of-the-art of bunk bed technology and do not address bunk beds that are blatantly misused or are used in a careless manner that disregards warning statements and safety instructions that are provided with each bunk bed.

It is intended that these safety guidelines will be updated whenever substantive information becomes available which necessitates additional requirements or justifies revising the existing requirements.

G

UNITED STATES GOVERNMENT

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

MEMORANDUM

TO : Elaine Tyrrell, OPMB
Through Douglas L. Noble, Director, OPMB
FROM David Schmeltzer, AEDCA

MAY 06 1988

SUBJECT: CA Recommendation to Grant Petition to Promulgate
Mandatory Standards for Bunk Beds

We still believe the better course of action would be to grant the petition to promulgate a mandatory standard. If the Commission does not grant the petition, at a minimum we should insist that the industry take steps to have the guidelines issued as a voluntary standard by a recognized voluntary standards such as ASTM or the American National Standards Institute (ANSI).

We are concerned that nonconformance with the guidelines may be high, particularly among firms that do not belong to AFMA and firms new to the bunk bed business. We believe that a significant number of firms manufacturing or importing bunk beds may fall into one of these two categories since this is a business which is easy to enter and exit. These types of firms would be more likely to find out about a voluntary standard issued by a recognized voluntary standards organization than they would be to learn about the guidelines. In addition the guidelines would have greater recognition and credibility if issued as a voluntary standard.

Bunk beds present a significant risk of injury or death to children, a vulnerable population. We believe it is premature to assume that conformance with the guidelines will be adequate to reduce these serious injuries and deaths.

Granting the petition and publishing an advance notice of proposed rule making may encourage the industry to take the steps necessary to have the guidelines published as a recognized voluntary standard. If the guidelines were published as a voluntary standard and if conformance with the standard is adequate, the Commission could withdraw the ANPR.

H

UNITED STATES GOVERNMENT

MEMORANDUM

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

May 12, 1988

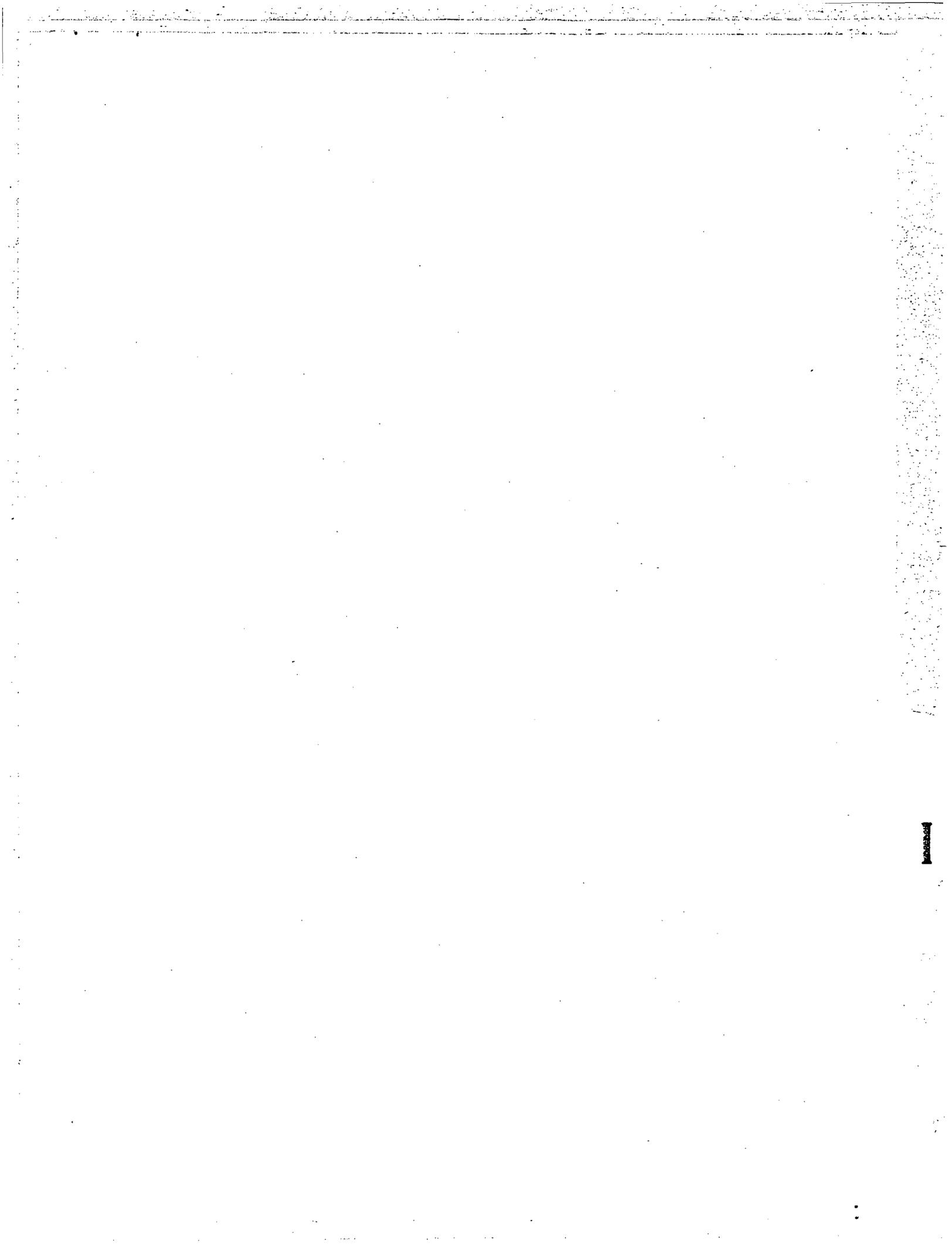
TO : Elaine Tyrrell, EXPM
FROM : William W. Walton, AED, ES ^{W3}
SUBJECT: ES Recommendation Concerning CFA Petition (CP-86-2)
on Bunk Beds

Engineering Sciences recommends that the Commission grant the subject petition and issue an ANPR for bunk beds for the following reasons.

During the past 12 months, we have responded to 9 requests from CACA for Product Safety Assessments (PSA's) on bunk beds. From our review of material contained in reports of establishment inspections of their manufacturers, it appeared that none were in total conformance to the 1986 Voluntary Bunk Bed Safety Guidelines. The most frequent violations of significant provisions were non-conformance to those which address entrapment, both between mattress and guardrail and between bed and wall. Staff is aware of at least 25 deaths resulting from such entrapment incidents.

Many bunk bed manufacturers are not members of AFMA and appear to be small firms subject to frequent changes of ownership (we are aware of one firm that has had 4 owners in a 12 month period). Such companies may be more likely to be aware of the safety requirements for bunk beds if they were published as a mandatory standard or, as a minimum, in the form of a voluntary consensus standard by a recognized organization such as ASTM or ANSI.

Although AFMA has previously declined a staff suggestion to publish the bunk bed safety guidelines as a voluntary standard, granting the petition and publishing an ANPR could result in a reversal of this decision. Since the 1988 revisions to the bunk bed safety guidelines have, for the most part, addressed the concerns previously voiced by staff, it is my opinion that these could be used for the framework of requirements in a standard, either mandatory or voluntary, with minimal expenditure of staff resources.



UNITED STATES GOVERNMENT

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WASHINGTON, D.C. 20207

MEMORANDUM

APR 23 1988

TO : Elaine A. Tyrrell, Project Manager
Children's & Recreation Products Program

FROM : Andrew G. Ulsamer, Ph.D., AED, HS *mul/AGU*

SUBJECT: Bunk Beds - CP-86-2

We have reviewed the revised Bunk Bed Guidelines submitted to CPSC by the American Furniture Manufacturers Association on February 18, 1988. Although some of the staff's recommendations have been incorporated in the guidelines (entrapment between mattress and guardrail and end structure problems), other significant recommendations have not been adequately addressed. For example, the potential entrapment hazard between the bottom bunk and the wall has not been addressed at all. To adequately address this hazard, two guardrails must be used when the lower bunk is to be used as a child's first regular bed even if the bed is next to the wall.

Therefore, we continue to support granting the subject petition. However, if at some later time, a voluntary standard was developed that adequately addressed the hazards, the rule making process could be suspended.

UNITED STATES GOVERNMENT

U.S. CONSUMER PRODUCT
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WASHINGTON, D.C. 20207

MEMORANDUM

TO : Elaine A. Tyrrell, Project Manager
Children's & Recreational Products Program

Through: Andrew G. Ulsamer, Ph.D., AED/HS AGU

FROM : Warren K. Porter, Director, HSHL *AKP*

SUBJECT: CP-86-2-Bunk Beds

9/24/87

Based on our review of the briefing package on bunk beds, Health Sciences supports the option of granting the CFA petition. A total of 72 deaths involving bunk beds have been reported for the period 1979 through 1986 or approximately 10 deaths/year. Since these are anecdotal reports, the actual number may be higher. There were additionally over 600 injuries in 1986 that required hospitalization. This is a level of death and injury that should be addressed if reasonable fixes are available.

It is difficult to tell from the data presented in TAB D whether bunk beds are indeed more dangerous than conventional beds. The only comparison provided is for bed to wall entrapment where the risk of injury seems similar for the two types of beds. However, examination of the data presented for bunk beds on bed to wall entrapment shows that for all 4 deaths where the location of the accident is known, the upper bunk and not the lower was involved. While the numbers are small, this suggests that the factors involved in the accidents may be different for the two types of beds. Injuries related to structural failures, hanging, guardrail entrapment and falls would seem to be more related to bunk beds and/or more likely to occur with bunk beds.

The petition cites three hazards, only one of which, mattress supports, is adequately addressed in the current guidelines. The other two hazards, entrapment between the mattress and the guardrail and between the bed and the wall have one or more deficiencies. There are additionally two other entrapment hazards identified by staff, but not mentioned in the CFA petition: entrapment between the mattress and bed structure, and entrapment or falls associated with end structures of the upper bunk. All of these hazards should be addressed if the petition is granted.

In conclusion, there are hazards associated with bunk beds that cause death and injury to children. These hazards are not adequately addressed by existing guidelines and the petition should therefore, in our opinion, be granted. This recommendation assumes that a reasonable relation exists between costs and benefits as stated by the OGC guidance memo.

Sept. 22, 1987

TO: Dave Thome
FROM: Dave Shiflett
RE: Bunk beds



The Office of Information and Public Affairs, while generally opposing excessive regulation, votes to grant the petition. Whereas riding ATVs and tossing lawn darts involve risk, going to bed is thought to be a safe activity, which it generally is. Though bunk beds may not be involved in a large number of consumer deaths, they apparently could be fine-tuned and made even safer. We are not compelled to believe there is a good reason not to make every effort in this regard.

K

UNITED STATES GOVERNMENT

Memorandum

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D. C. 20207

TO : The File

DATE: MAY 19 1988

FROM : *DUN* Douglas L. Noble, Director
Office of Program Management and Budget

SUBJECT: OPMB Recommendations to Grant Petition to Promulgate
Mandatory Standards for Bunk Beds

Subsequent to my memorandum of September 22, 1987, (TAB M of the October 1, 1987, staff briefing package), the staff has followed through with Commission's direction to work with the American Furniture Manufacturer's Association (AFMA) in their consideration of staff recommendations for improving the 1986 Bunk Bed Guidelines.

The Guidelines, as contained in the February 1988 revisions, have been improved substantially in addressing the major hazard patterns identified by the petitioner and the Commission staff. However, the risk of injury, including deaths, described in my original memorandum is still present. These revised guidelines will not be fully implemented by industry until the April, 1989 National Furniture Market, according to AFMA. The Commission therefore does not have any information, other than AFMA's assurances, to indicate the Guidelines will receive widespread recognition by all manufacturers of bunk beds (AFMA and non-AFMA members alike) or substantial conformance with its provisions.

Therefore, OPMB continues to recommend that the petition be granted and the staff be instructed to prepare an Advance Notice of Proposed Rulemaking (ANPR). Later, if implementation and conformance to the Guidelines can be assured, the rulemaking process could always be terminated.

L

UNITED STATES GOVERNMENT

MEMORANDUM

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

TO : Elaine A. Tyrrell, Project Manager DATE : 5/17/88

FROM : Alfred L. Roma, AED-Field Operations *ALR*

SUBJECT: Recommendation on Bunk Beds

The February 1988 revisions to the American Furniture Manufacturers Association Bunk Bed guidelines clearly represent a significant improvement over those provisions contained in the Guidelines published in 1986. These latest revisions address a substantial proportion of the issues surfaced by CPSC.

Based on this progress and, reflecting the hazards associated with bunk beds, and present resource base of CPSC, we recommend denying the Consumer Federation of America Petition.

Field Operations recommends that the CPSC Staff continue to work with the American Furniture Manufacturers Association to further strengthen the February 1988 revision, prior to final publication of the 1988 Guidelines.

m

UNITED STATES GOVERNMENT

Memorandum

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

06 MAY 1988

To : Elaine A. Tyrrell, OPM
Through *WJ*: Douglas L. Noble, Director, OPMB
From *WJ*: Warren J. Prunella, AED, EC *WJP*
Subject : Bunk Beds

After reviewing the latest draft package on the Inter-Industry Bunk Bed Committee Guidelines, I'd like to offer a few comments. There is nothing in this new package to lead me to recommend granting the petition. However, although in the last package we stated that we did not recommend a voluntary standard procedure, we now believe that if the Guidelines are published (and we do agree they should, after consideration is given to ES and HF comments), they should be referred to ANSI to be adopted as a voluntary standard.

Since there exists an ANSI standard for beds, including bunk beds, the incorporation of these Guidelines will bring all of the desirable features together and not lead to any confusion on the part of manufacturers on what provisions apply to bunk beds. The Guidelines can go into effect as scheduled and the voluntary standards procedures can follow an orderly consensus process.

There are a few statements in your briefing paper that would indicate that there is unanimity in some of the 'staff beliefs' when, in fact, there is not. For example, you state that, "...the staff believes that the Guidelines would be more readily obtainable by all manufacturers of bunk beds and therefore more effective if they were published as a voluntary standard." We don't believe that. However, that misrepresentation can be easily remedied by attributing those types of statements to the technical offices that are in agreement.

n

UNITED STATES GOVERNMENT

MEMORANDUM

U.S. CONSUMER PRODUCT
SAFETY COMMISSION
WASHINGTON, D.C. 20207

May 13, 1988

TO : Elaine A. Tyrrell, EXPM
FROM : Dr. Robert D. Verhalen, AED, EP
SUBJECT: Briefing Package on Bunk Beds: Evaluation
of February 1988 Guideline Revisions

The EP position on handling the Bunk Bed petition has not changed since the October 1987 briefing package. To reiterate:

- o We know of about 30 entrapment deaths over the entire history of the Commission. Twenty-three of these are to children below age two. The team recommended in a safety alert that children less than two years of age should not be placed on bunk beds.
- o The majority of entrapment deaths for which location of the victim was known involving children below age 6 (12 out of 16), indicated the beds were being used in a fashion contrary to present manufacturer recommendations.
- o The proportion of bed entrapment related deaths which involves bunk beds is no greater than the proportion of beds which are bunk beds. That is, bunk beds are involved in no more entrapments than other beds given the share of beds in use which are bunk beds. Accordingly, it is difficult to justify a regulation specific to bunk beds.

In light of the relatively low number of deaths resulting from the use of bunk beds, it would be, in our view, very difficult to justify granting the petition for a mandatory standard for any or all of these hazards. The better course would be to simply publish the Guideline as proposed, and refer them to ANSI to be considered for adoption as a voluntary standard (as part of the voluntary standard for all beds).