United States
CONSUMER PRODUCT SAFETY COMMISSION
Washington, D.C. 20207

MEMORANDUM

DATE: January 15, 1999

TO : Commissioner Mary Sheila Gall

Through: Sadye E. Dunn, Secretary
Jeffrey S. Bromme, General Counsel
Pamela Gilbert, Executive Director

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SUBJECT: Response to Your Questions Regarding Bunk Beds

This memorandum provides responses to the follow-up questions your office provided to the staff on January 8, 1999. In addition, answers to two questions, asked by you and the Chairman during the January 7, 1999 briefing, are provided at the end of the memorandum.

1. I would like clarification about the age of the bunk beds that were involved in the 39 fatalities that occurred since 1993, after the 1992 ASTM standard for entrapment went into effect. We know three deaths occurred on complying products. Of the remaining 36 entrapment deaths, how many bunk beds involved in these incidents were manufactured after 1992?

There were 39 bunk bed entrapment-related deaths reported to CPSC from 1993 to the present time. In 35 of these cases, the age of the bed was unknown. In four cases, it was reported that the bed was purchased since 1992, although staff does not know the date the bed was manufactured.

2. The briefing package does not take into account the time it normally takes for a voluntary standard to be in effect before we see a change in trends. Staff estimates the useful life of a bunk bed to be 13 to 17 years. The ASTM standard for entrapment has only been in effect since 1992. Based on prior experience with similar long life products such as cribs and playpens, is it reasonable to expect to see a noticeable reduction in entrapment deaths after only 6 years?

Staff would not expect to see a statistically significant reduction in entrapment deaths after only six years. With an average product life of 13 to 17 years, only about 7 percent of the bed population cycles out of use each year, assuming constant production. Thus, it is

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Firms Notified.

likely that there would still be many pre-standard bunk beds in use for quite a few years after the voluntary standard was published. In addition, because of the small annual number of deaths reported, the anecdotal nature of the data involved, and delayed reporting from some data sources, it would be difficult to identify significant trends in entrapment-related deaths at this time. However, the staff's concern about the continued nonconformance is based primarily on the record developed by the Office of Compliance on the number of firms they have discovered that do not conform to the ASTM standard.

3. I am concerned about the number of older bunk beds in households prior to the existing voluntary standard. We know from experience with cribs and playpens that they are kept in use much longer than industry estimates. How did staff arrive at the estimated 13 to 17 year life of the product?

The expected useful life of 13-17 years was obtained from AFMA and individual manufacturers of bunk beds. This figure represents an average range. Some beds last longer and some less. For example, with a normal failure rate distribution, some 2% of sales would remain at twice the average useful life, suggesting that some bunk beds may be used for 25-35 years or more. Thus, it is not surprising that, in some past recall efforts with cribs and playpens, staff noted small numbers of units remaining well after the end of their average useful lives.

4. What has been the change in exposure rates since 1979 (when the first bunk bed guidelines went into effect) through 1998?

The information is not available to estimate changes in bunk bed exposure for young children between 1979 and 1998. What we do know, based on industry estimates, is that the sales of bunk beds have remained relatively constant for some time at about 500,000 per year. We also know that the U.S. population of children under five years of age has increased from 16.1 million in 1979 to 19.1 million (projected), about a 20 percent increase. What is not known is the number of young children that used bunk beds for this time period. Without this information, a reliable estimate of exposure cannot be made.

5. How many entrapment deaths have occurred each year from 1979 through 1998?

As of January 1999, the annual number of bunk bed-related entrapment deaths reported to CPSC from 1979 to the present is shown below. Please note that these deaths are neither a complete count of all that occurred during this time period nor a sample of known probability of selection. However, they provide a minimum number of deaths that occurred in this time period.

YEAR	DEATHS	YEAR	DEATHS
1979	*1*	*1989*	*10*
1980	*4*	*1990*	*5*
1981	*1*	*1991*	*10*
1982	*1*	*1992*	*3*
1983	*5*	*1993*	*10*
1984	*5*	*1994*	*6*
1985	*4*	*1995*	*5*
1986	*3*	*1996*	*11*
1987	*3*	*1997*	*6*
1988	*4*	*1998*	*1*

6. How many entrapment deaths occurred each year from 1979 through 1998 that would have been prevented by the staff proposed standard? (Excluding deaths that occurred on institutional or home made bunk beds, and deaths caused by incorrect mattress size, or entrapment between the wall and mattress.)

From 1979 through 1998, staff is aware of 98 bunk bed-related entrapment deaths. In general, the standard currently proposed by staff would have addressed all fatal top bunk entrapment incidents and all bottom bunk entrapment incidents involving the end structures of the bed. These locations were specified in 64 cases (in many cases, the specific location of entrapment was not reported). Excluding fatal incidents involving these locations on homemade bunk beds (10 cases), staff believes that the proposed standard would have prevented at least 54 deaths during this time period (assuming 100% conformance and effectiveness). Two of these 54 deaths occurred on institutional beds.

7. Since the January 1998 briefing package identifying 106 companies, the staff has identified 54 more manufacturers or importers of bunk beds. Of the 160 known companies, how many of these firms have been in business since 1992?

The staff reviewed files and reports for 132 firms to identify the number of known companies in business since 1992. Of these 132 firms, the number known to be in business since 1992 is 102. There is no information at hand to establish with certainty whether the other firms were in business before or after 1992.

8. How many of these firms are considered small businesses?

The Small Business Administration (SBA) guidelines classify firms in the furniture production industry as small businesses if they have less than 500 employees, are independently owned, and are not dominant in the field. Based on this definition, over 80% of the firms identified as producing bunk beds would be classified as small businesses. While staff does not have a detailed breakdown of the number of employees in all firms known to produce bunk beds, a large proportion of the members of AFMA and the ASTM committee

(estimated at about 40 firms by industry) are large firms with more than 500 employees. The non-member firms, in contrast, tend to be smaller. While some have more than 100 employees, most appear to have fewer than 50.

9. What percentage of the bunk bed market, (number of products) does staff estimate these small firms produce each year?

The only information on sales available to the staff is that already provided in the briefing package. The staff does not have information to enable it to independently respond to this question.

10. What percentage of the bunk bed market would you estimate might still be unaccounted for?

The percentage of the bunk bed market that might still be unaccounted for is unknown, but is likely to be small.

11. In the January 1998 briefing package, staff stated that all known bunk bed manufacturers were in compliance with the voluntary standard. Of the 160 firms now identified by staff in this briefing package, how many of these firms are now in compliance with the ASTM voluntary standard?

Upon identification of a firm that manufactures and/or imports bunk beds, the Office of Compliance informs the firm of the existence of the ASTM voluntary standard and obtains assurance their beds are being brought into conformance with the ASTM standard. As a result, all firms having contact with the Commission should be in compliance with the voluntary standard. However, as revealed by the latest retail inspections, the staff found at least 7 of the identified manufacturers/importers who had previous recall actions with the CPSC to have non-complying bunk beds. The staff again informed these firms of their non-compliance, and the firms again provided assurances that they will bring their beds into conformance.

12. The package states that the violators of entrapment requirements are the small firms which are diverse, fragmented and with various levels of sophistication. Does the staff have any examples in other product categories where small firms, similarly diverse, fragmented and unsophisticated, are made more aware of safety standards because they are mandated?

Our experience with the small parts, pacifier, and rattle regulations supports the conclusion that small, fragmented and diverse firms tend to be more aware of, and to comply better with, mandatory regulations than voluntary ones. Each of these industries has a substantial number of small "players" that often are not members of trade associations and that may manufacture relatively small quantities of a number of products, many of which are not subject to regulation at all. The number of violations of these regulations that we encounter is relatively small, and those violations frequently involve questions of

interpretation of the applicability of the regulations and their requirements rather than outright violations based on ignorance of the requirements. In our experience, firms both large and small, sophisticated and unsophisticated, generally make it their business to be aware of mandatory standards for products they manufacture and sell.

13. What has been the agency's experience with discount or independent retailers who purchase products from small firms similarly diverse, fragmented and with various levels of sophistication, regarding their level of compliance to obtain certification of mandatory standards' requirements?

It is generally our experience that even relatively small and unsophisticated retailers recognize the need for products they sell to comply with state and federal regulations . The sale of products that violate such regulations may subject retailers to a variety of sanctions and penalties. Therefore, these regulations provide an incentive to assure that the products they sell comply with all relevant mandatory standards. Firms typically include requirements in purchase orders requiring products to meet all federal and state requirements.

14. Once the agency finds a non-complying retailer, don't you add their name to a mailing list to follow-up with future monitoring, keep them informed of new enforcement policies, or send press releases on recalled products?

No. At the time such retailers are identified, we routinely provide them with a complete set of regulations applicable to the products they sell. In addition, whenever a manufacturer recalls a product, we attempt to assure that the manufacturer notifies all the retailers who carried the product.

15. Even though staff has historically worked cooperatively with ASTM on improving the bunk bed standard, staff did not submit their proposal to ASTM for formal consideration. During the briefing, staff stated they have no doubt ASTM would be cooperative in considering this proposal. I understand there is a "fast track" method to streamline the process for standards setting which as been implemented in the past. If staff were directed to present their proposal for improving the current ASTM standard, what would staff consider a reasonable amount of time for the ASTM committee to act?

Predicting the time period for approval of revisions to the ASTM standard for bunk beds is difficult since it depends largely on whether any negative votes would be received during the ballot process. The shortest time period for approval of a revision to any ASTM standard addressing children's hazards was the 1994 revision of the bunk bed standard. Requirements addressing collapse of metal beds were drafted during a single meeting of the ASTM bunk bed subcommittee, and the standard was approved within ten months of that meeting. Assuming the bunk bed subcommittee members are willing to accept the staff's suggested provisions for a continuous guardrail on the wall side of the upper bunk and expand the lower bunk entrapment requirements to the entire end structure, staff estimates that the standard could be revised and republished in a minimum of about 12 months.

Following are responses to the two questions staff was unable to answer during the January 7, 1999 briefing:

1. From Commissioner Gall: How many fatal entrapment incidents involved imported products?

In most cases, the manufacturer of the bunk bed was unknown. However, in the 10 cases for which the manufacturer was reported, three (all were metal beds) involved imported products.

2. From Chairman Brown: Were any of the firms found to have noncomplying bunk beds members of AFMA?

Staff is aware of one manufacturer who is an AFMA member whose beds were involved in a recall in 1995.

Staff would also like to inform the Commission that the seemingly nonconforming bunk bed appearing in an advertisement in the December 28, 1998 issue of the Buffalo News, that was mentioned during the briefing, does conform to the provisions in the ASTM standard. The illustration of the bed in the advertisement depicted an earlier model.

cc: Chairman Ann Brown
Commissioner Thomas H. Moore