UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

'02 MAR 26 P 4:15

BALLOT VOTE SHEET

DATE: April 25, 2002

TO: The Commission
Todd A. Stevenson, Secretary

FROM: Stephen Lemberg, Acting General Counsel SL
Lowell F. Martin, Attorney-Advisor, GCAL (ext. 2217) LFM

SUBJECT: Termination of Baby Walker Rulemaking Proceeding

Ballot Vote Due: MAY 1 2002, 2002

In the attached briefing package, the staff recommends that the Commission terminate the baby walker rulemaking proceeding that is ongoing under the Federal Hazardous Substances Act (FHSA). The basis for this recommendation is the staff's belief that current information does not support making the findings necessary under the FHSA to issue a walker stair fall performance standard.

Should the Commission accept the staff's recommendation to terminate, it may wish to inform the public of the decision and the basis for it. The Office of the General Counsel provides a draft *Federal Register* notice as Tab F to the attached briefing package that would accomplish this.

Please indicate your vote on the following options.

I. Terminate the baby walker FHSA rulemaking proceeding. (If you vote for this option, please also vote for public notice option III., IV., or V.)

_____ _____
(Signature) (Date)

II. Direct the Office of the General Counsel to begin preparing a notice of proposed rulemaking for a mandatory baby walker stair fall performance standard.

_____ _____
(Signature) (Date)

CPSA 6 (b)(1) Cleared 4-26-02
No Mfrs/Prvtlblrs/Private Labelers

NOTE: This document has not been reviewed or accepted by the Commission.
Initial SL Date 4-26-02

III. Publish the *Federal Register* notice of termination as drafted.

_____ _____

(Signature) (Date)

IV. Publish the *Federal Register* notice of termination with changes. (Please specify.)

_____

_____

_____

_____ _____

(Signature) (Date)

V. Do not publish the *Federal Register* notice of termination.

_____ _____

(Signature) (Date)

Attachment - Staff briefing package on baby walkers

BRIEFING PACKAGE

RULEMAKING PROCEEDING ON BABY WALKERS

April 2002

For Further Information Contact:

Barbara J. Jacobson,
Project Manager
Directorate for Health Sciences
(301) 504-0477 ext. 1206
bjacobson@cpsc.gov

NOTE: This document has not been reviewed or accepted by the Commission.
Initial AB Date 4-26-02

TABLE OF CONTENTS

Tab C Memorandum from Debra Sweet, Division of Hazard Analysis, "Baby Walker-Related Deaths and Injuries," April 10, 2002.

Tab D Memorandum from George F. Sushinsky, "Step Tests of Infant Walkers," May 1, 2001

Tab E American Academy of Pediatrics Policy Statement

Tab F Draft Federal Register Notice

EXECUTIVE SUMMARY

The U.S. Consumer Product Safety Commission (CPSC) staff recommends that the Commission terminate the mandatory rulemaking proceeding on baby walkers. The staff believes that the 1997 revisions to the voluntary standard, "Standard Consumer Safety Specification for Infant Walkers" (ASTM F977), are adequate to address the risk of injury associated with children falling down stairs while in a baby walker.

The Commission initiated a rulemaking proceeding on baby walkers by publishing an advance notice of proposed rulemaking (ANPR) on August 2, 1994. At the time of the ANPR, baby walkers accounted for a higher number of injuries than any other type of nursery product. The majority of baby walker-related injuries occurred as a result of children falling down stairs while in a baby walker.

Beginning in 1994, after publication of the ANPR, the staff worked with the ASTM Walker Subcommittee to add new performance requirements to the voluntary standard to address the stair-fall hazard. The new requirements were published in early 1997. Around that time, manufacturers began to market complying walkers designed to stop at the doorway entrance to a stairway or at the top of the stairs.

In order to determine how effective these measures have been, the staff conducted special studies of walker incidents. The primary purpose of these studies was to identify the types of walkers involved in recent stair-fall incidents. On the basis of follow-up telephone and on-site investigations, the staff determined that most of the stair-fall incidents were associated with walker designs that do not meet the new requirements. These walkers were likely manufactured before publication of the ASTM stair-fall requirements.

From 1995 to 2000, the estimated number of baby walker-related injuries to children younger than 15 months old treated in hospital emergency rooms dropped by 63 percent. This drop cannot be attributed to a decrease in births over the six-year time period, nor can it be attributed to a decrease in sales of baby walkers. A preliminary review of baby walker-related injuries for 2001 indicates a continued decrease in the estimated number of overall injuries and specifically in the estimated number of stair-fall injuries. The staff expects the number of injuries to continue to drop as new baby walker designs replace old-style mobile walkers in U.S. households.

According to the Juvenile Products Manufacturers Association (JPMA), walkers that comply with the ASTM stair-fall requirements account for more than 98 percent of the walkers available for sale in the U.S. This is because retail stores in general require that the baby walkers they sell be certified by JPMA to meet the ASTM standard. All domestic manufacturers of baby walkers are members of JPMA and make baby walkers certified by JPMA to meet the requirements of the voluntary standard. The CPSC staff believes the high level of industry compliance has contributed to the substantial reduction in walker-related injuries.

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

MEMORANDUM

APR 25 2002

TO : The Commission
Todd Stevenson, Secretary

THROUGH : Stephen Lemberg, Acting General Counsel
Thomas W. Murr, Jr., Acting Executive Director

FROM : Jacqueline Elder, Acting Assistant Executive Director
for Hazard Identification and Reduction
Barbara J. Jacobson, Project Manager for
Baby Walkers, Directorate for Health Sciences
(301) 504-0477 ext. 1206

SUBJECT : Rulemaking Proceeding on Baby Walkers

This memorandum presents the following information related to the U.S. Consumer Product Safety Commission (CPSC) staff's recommendation to terminate the baby walker rulemaking proceeding:

- an evaluation of the stair-fall performance requirements in the voluntary standard
- current market information
- a discussion about industry compliance
- data on walker-related deaths
- injury estimates from CPSC's National Electronic Injury Surveillance System (NEISS)
- results of special studies on walkers conducted by CPSC staff
- results of walker testing conducted by CPSC staff
- a discussion about an American Academy of Pediatrics Policy Statement on baby walkers
- information about regulatory activity in Canada

CPSA 6 (b)(1) Cleared
No Mfrs/Prvtlbls or Products Identified
Accepted by
Firms Notified.

NOTE: This document has not been reviewed or accepted by the Commission.
Initial Date 4/26/02

BACKGROUND

In 1992, CPSC was petitioned to ban baby walkers by the Consumer Federation of America, the American Academy of Pediatrics (AAP), the Washington State Chapter of the AAP, the National SAFE KIDS Campaign, and Consumers Union. The petitioners requested that the Commission repeal the provisions under the Federal Hazardous Substances Act (FHSA) that exempt baby walkers from classification as a banned hazardous substance if they meet certain requirements. The mandatory requirements address injuries related to scissoring, shearing, or pinching (amputations) and accidental collapse of the walker while in use. The petitioners asserted that baby walkers were a major source of childhood injury.

The petition was denied in 1993. The Commission stated that while the available evidence did not support a total ban, less burdensome alternatives, such as walker design modifications, could prove effective. A CPSC staff project was initiated to develop requirements to address the stair-fall hazard. The project included a special study of walker-related injuries reported through NEISS.

The staff submitted a status report with options to the Commission in June 1994. The report provided a summary of voluntary standards activities, product and market information, and a preliminary analysis of the special study results. Options for Commission consideration included issuing an advance notice of proposed rulemaking (ANPR).

On August 2, 1994, the Commission began a rulemaking proceeding on baby walkers by publishing an ANPR. At that time, baby walkers accounted for more injuries than any other type of nursery product. The majority of these injuries occurred as a result of children in walkers falling down stairs.

The ANPR requested comments on the risk of injury associated with baby walkers, the regulatory alternatives, the economic impact of the alternatives, and other possible means to address the identified risks. The ANPR also invited submission of a voluntary standard that would reduce injuries.

Thirteen comments were received in response to the ANPR. Seven comments supported a mandatory standard. Five of the six comments that opposed the mandatory standard requested that any new requirements for walkers be developed through the ASTM voluntary standard-setting process.

After publication of the ANPR, the staff worked with the ASTM Subcommittee to add new performance requirements to the voluntary walker standard to address the stair-fall hazard. The performance requirements passed the final ASTM balloting in August 1996, received final approval on October 10, 1996, and were published in early 1997.

Around the time of the publication of the 1997 requirements, manufacturers began to market complying walkers designed to stop either at the doorway entrance to a stairway or at the top of the stairs.

VOLUNTARY STANDARD
(Tab A)

The Directorate for Engineering Sciences (ES) memorandum at Tab A discusses the adequacy of the voluntary stair-fall performance requirements.

Summary of the Stair-Fall Performance Requirements

The performance test that addresses stair-fall injuries simulates a child in a walker moving across the floor through a doorway to a stairway. A CAMI Infant Dummy Mark II (CAMI Dummy) represents a child in the walker. The walker is tested facing forward, backward, and sideways. If during these tests, the walker passes through the 36-inch wide opening at the end of a test table and falls to the floor, the walker fails to meet the performance requirements. If the walker stops at the end of the test table and any part of the walker extends over the edge of the test table, a tip-over test is performed. The walker fails to meet the performance requirements if it then falls off the table during the tip-over test. Refer to Tab A for drawings of the test set-up.

Test Parameters

The parameters for the performance requirements were developed by the ASTM Stair-Fall Work Group and are based on the results of the CPSC NEISS special study and results of research conducted by walker manufacturers in the Work Group.

CAMI Infant Dummy Mark II

According to walker manufacturers' instruction sheets, a child should not use a walker until he can sit up unassisted, around 6 months of age. Walker use should stop when a child is walking, anywhere from 9 to 15 months of age.

The test is performed at both ends of the weight range for children who use walkers. The 17-pound CAMI Dummy represents the 50th percentile weight of children ages 6 to 8 months old. The test is also performed using the CAMI Dummy with a vest weighted to achieve a total weight of 28 pounds. This represents the 95th percentile weight of children ages 12 to 15 months old.

Stairway Entrance

The 36-inch opening at the end of the test table simulates a doorway leading to a stairway. Based on the results of the CPSC NEISS special study, approximately 80 percent of the openings that walkers passed through prior to falling down stairs were 36 inches or less.

Propulsion Force Generated by a Child in a Walker

The test uses an 8-pound falling mass at the end of a rope extended over a pulley to pull the walker toward the edge of the test platform. The ASTM Work Group determined the appropriate mass by measuring the force generated by children in walkers moving on several different floor surfaces. The children were in old-style walkers that did not meet the stair-fall requirements. The ten children were between 6 1/2 to 11 months old and weighed 15 to 23 pounds. The highest measured force was 7.5 pounds.

Test Surface

The test surface is based on the type of flooring in U.S. homes that would result in the highest velocity for the walker. The ASTM Work Group measured the force of a friction material against typical surfaces such as hardwood flooring, linoleum and carpet. The lowest friction force measured was oak hardwood floor with a polyurethane finish. A child in a walker would achieve higher speeds on a hard smooth surface such as a hardwood floor than on a soft, more resistant, surface such as carpet.

Walker Speed and Direction

The simulated speed at which the walker is pulled toward the edge of the test platform during the performance test is based on the results of tests conducted by members of the ASTM Work Group. During these tests, the maximum speed attained in a group of seven children in old-style walkers was 4.02 feet per second.

During the ASTM performance test, the walker is pulled toward the edge of the test platform facing forward, backward, and sideways. Testing with the walker oriented forward and backward is conducted at a simulated speed of 4 feet per second. Testing with the walker oriented sideways is conducted at a simulated speed of 2 feet per second. The walker is placed at calculated distances from the edge of the test platform to achieve the desired simulated speed when it reaches the platform edge. The calculation takes into account the weight of the walker, the weight of the CAMI Dummy, the friction of the wheels on the test surface, and the propulsion force achieved with the 8-pound falling weight.

Tip-over Test

A tip-over test is performed if any part of the walker extends over the edge of the test platform when the walker is tested in either the forward or sideways direction. To conduct this test, the CAMI Dummy is removed and a 17-pound downward force is applied to the walker tray at a specified distance from the inside edge of the tray. This downward force simulates a child leaning forward or sideways in the walker. Seventeen pounds represents the 95th percentile *upper body* weight of children ages 12 to 15 months. The tip-over test is not conducted when the walker is tested facing backward since the seat back prevents a child from leaning backward.

New Walker Designs

To meet the stair-fall requirements, walkers must be either too large to pass through the 36-inch wide opening at the end of the test table or have features such as "friction strips" to stop the walker at the edge of the test table. The staff believes that all complying walkers currently on the market have friction strips. When a wheel passes over the edge of the test table, the friction strips under the base contact the platform surface. Due to the combined weight of the walker and the CAMI Dummy or the CAMI Dummy and weighted vest, the friction between the strips and the test table is sufficient to stop the walker's motion. A walker with friction strips is usually longer in the front-to-back dimension. On some models the seat is positioned so that the center of gravity is toward the back of the walker. This helps prevent the walker from falling forward over the edge of the test table even when the downward force is applied during the tip-over test.

Conclusion

The ES staff concludes that the stair-fall requirements included in the voluntary standard for baby walkers (ASTM F977) are a reasonable simulation of a child in a walker moving through the opening of a stairway and across a stair step. The requirements specify stringent test parameters such as maximum speed, maximum force, and a tip-over test.

ECONOMIC INFORMATION
(Tab B)

The Directorate for Economic Analysis (EC) memorandum at Tab B provides information about the extent to which baby walkers comply with the ASTM stair-fall requirements and the extent to which walker alternatives are being substituted for baby walkers. The information is based on a review of CPSC documents, an Internet Web site search, and a review of Federal government trade statistics. In addition, the staff reviewed trade press, contacted industry and trade association representatives, and reviewed private-sector survey information on the purchase and use of walkers by new and expectant mothers.

Market Information

Approximately one million baby walkers are sold in the United States each year. In the U.S., baby walkers generally can be purchased in mass merchandise stores, mid-range-priced department stores, chain toy stores, infant and child specialty shops, baby superstores, catalog showroom stores, and over the Internet. When the ASTM stair-fall requirements were published in 1997, manufacturers began producing walkers designed to prevent falls down stairs. These new-style walkers continue to provide the unique features of traditional baby walkers. Features include mobility (i.e., a child in a walker can move from one physical location to another) and portability (i.e., some walkers can be folded so that they can be carried from one location to another).

Extent of Compliance

The staff concludes that there is a high rate of compliance with the ASTM stair-fall requirements. An April 2000 letter from the Juvenile Products Manufacturing Association (JPMA) to CPSC staff indicates that the rate of compliance with the ASTM voluntary standard exceeds 98% of walkers available for sale in the U.S. The staff recently reconfirmed this information. Additionally, the following information gathered independently by CPSC staff appears to confirm the JPMA estimate:

- All five domestic manufacturers of baby walkers are members of JPMA and make walkers that are certified by JPMA to comply with the requirements of the ASTM standard.

- The large and well-known regional and national retailers, as well as smaller independent specialty stores, sell only JPMA-certified walkers. The Baby Products Tracking Study published in early 2000 reported that the types of retailers that sell only JPMA-certified walkers are the most likely places consumers purchase baby walkers. The study is conducted for American Baby, Inc. (publishers of *American Baby* magazine) by Bruno and Ridgway Research Associates, Inc. The study is conducted every three years to determine what products new and expectant mothers are purchasing and how they are using them.

- Based on the results of the 2000 Baby Products Tracking Study, about five percent of new and expectant mothers purchased baby products, including walkers and stationary activity centers, through the Internet. In 2000, several domestic baby-related Web sites were selling non-complying walkers; a recent review of these Web sites, as well as new sites that have appeared since the year 2000, found that all walkers now sold on these sites appear to comply with the voluntary standard.

- In 2000, an Internet search indicated that a few foreign exporters and a few domestic importers might be distributing non-complying walkers to U.S. wholesalers and retailers. CPSC staff is aware that about 65,000 non-complying walkers were distributed in the U.S. between 1997 and 2001. This is about 1.0 percent of all baby walkers sold during those years.

The staff will continue to monitor the marketplace. CPSC has initiated corrective actions with firms found to be importing non-complying walkers. If the Office of Compliance identifies walkers in the market that present a risk of falling down stairs, it can pursue a recall under section 15 of the Federal Hazardous Substances Act (FHSA) alleging the walkers are defective and present a substantial risk of injury to children. The staff will use the test in the ASTM voluntary standard to assess the stair-fall risk.

Walker Alternatives

Manufacturers began marketing "stationary activity centers" or "walker alternatives" in 1993. EC staff collected and reviewed information about the manufacturers of walker alternatives and their products, compared sales and price data for both products, reviewed information on use from the Baby Products Tracking Study, and researched the availability of walker alternatives.

There were four manufacturers of walker alternatives in the year 2000. Three of these firms also manufactured baby walkers. Retail prices of baby walker alternatives ($35 to $100) may be somewhat higher than retail prices of walkers ($30 to $60) because they have additional toys and features.

Data indicate that from 1996 through 1999, sales of baby walkers decreased by about 4 percent in 1997, the year the ASTM stair-fall requirements were published, stabilized in 1998, and decreased by 4 percent in 1999. Sales of walker alternatives decreased by about 5 percent in both 1997 and 1998, but increased by about 11 percent in 1999. The 1999 data suggest that some substitution is starting to occur, but some families may be buying stationary walker alternatives to use in conjunction with already-owned walkers. Industry representatives believe that more families are purchasing both a baby walker and a walker alternative.

WALKER-RELATED INCIDENTS
(Tab C)

The Directorate for Epidemiology memorandum at Tab C provides information about baby walker-related deaths and injuries.

Deaths

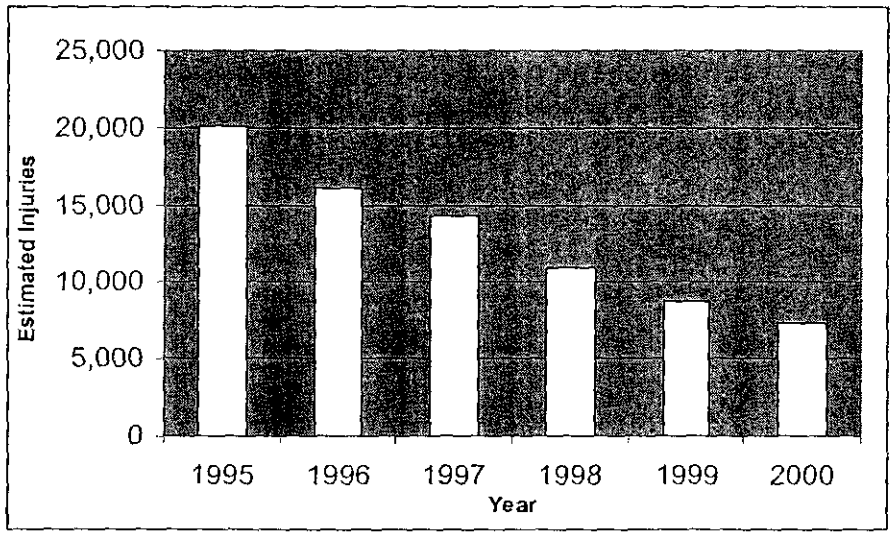
The CPSC staff is aware of 39 walker-related deaths since January 1973. The most frequent cause of death is falls down stairs. Twelve children died of injuries received when they fell down the stairs in a baby walker. Drowning is the second most frequent cause of death in children using baby walkers. Nine children drowned since 1973 after accessing water in a swimming pool, toilet, or bucket while in their walkers.

The two most recent walker-related stair-fall deaths were in May and June of 2001. These are the first reports of deaths from falls down stairs since 1997. The walkers in both cases were old-style walkers that were manufactured prior to publication of the ASTM stair-fall requirements. There are no reports of deaths involving baby walkers that were designed to meet these requirements.

NEISS Injury Estimates

Based on data from CPSC's National Electronic Injury Surveillance System (NEISS), there were an estimated 7,400 baby walker-related injuries to children under 15 months of age treated in U.S. hospital emergency rooms in 2000. This represents a 63 percent decrease in walker-related injuries when compared to the 1995 estimate of 20,100 injuries. According to a preliminary review of NEISS data, approximately 5,000 children less than 15 months of age were treated for baby walker-related injuries in 2001.

Baby Walker-Related Injuries (1995-2000)



This substantial decrease in the number of injuries over the six-year period is not a result of fewer children being born in the United States or a decrease in the number of walkers sold.

The number of live births in the U.S. (closest count of the number of children less than 15 months of age) increased 4.1 percent from 1995 to 2000, compared to the 63 percent decrease in walker related injuries during the same time period.

Although walker sales data is not available for 2000, the 8.6 percent decrease in sales from 1995 to 1999 would account for only a small portion of the 56 percent decrease in walker-related injuries during that same time period.

Hazard Patterns

Each year, the majority of walker-related injuries are associated with falls down stairs or between two floor levels. In 2000, an estimated 4,963 (67%) of the baby walker-related injuries were associated with falls down stairs or between two floor levels. An estimated 1,363 (18%) of the injuries occurred when the walker tipped or flipped over or the child fell out of the walker. In 2000, burn injuries were associated with less than three percent of the baby walker incidents.

Baby Walker Special Studies

To identify the types of walkers involved in the recent injuries, especially those involved in stair-fall incidents; CPSC staff conducted studies of incidents reported through NEISS hospital emergency rooms in 1999, 2000, and 2001. The results of these studies are helpful in evaluating the adequacy of the ASTM stair-fall requirements.

Reported injuries were followed up by a telephone investigation for details about the incident and the product involved. Additionally, the CPSC field staff attempted to conduct on-site investigations for all stair-fall incidents involving a walker designed to meet the new ASTM requirements. The staff attempted to collect new-style walkers involved in stair-fall incidents.

1999-2000 Baby Walker Special Study

During the six-month study period from November 1, 1999, through April 30, 2000, an estimated 2,415 children under 15 months of age were treated in U.S. hospital emergency rooms for injuries associated with baby walkers falling down stairs or between two levels. In 75 percent of these estimated injuries (based on 56 incidents), the child was in an old-style baby walker. In 12 percent of the estimated injuries (based on 6 incidents) the child was in a new-style baby walker. In the remaining 13 percent of the estimated injuries (based on 10 incidents), the style of walker was unknown.

2000-2001 Baby Walker Special Study

During the six-month study period from November 1, 2000, through April 30, 2001, an estimated 1,364 children under 15 months of age were treated in U.S. hospital emergency rooms for injuries associated with baby walkers falling down stairs or between two levels. In 70 percent of these estimated injuries (based on 14 incidents) the child was in an old-style baby walker. In 14 percent of the estimated injuries (based on 5 incidents) the child was in a new-style baby walker. In the remaining 16 percent of the estimated injuries (based on 7 incidents), the style of walker was unknown.

Summary of Cases Involving New-Style Walkers

For each of the special studies performed from 1999 through 2001, the results indicate that less than 15% of baby walker stair-fall injuries treated in emergency rooms involved new-style baby walkers that meet the stair-fall requirements in the ASTM walker standard.

During the two six-month study periods, 11 cases involved children treated for injuries associated with new-style walkers that went down the stairs. Special circumstances may have been involved in some of the incidents. For example:

- In one incident the baby walker was damaged (missing a front friction strip and one front wheel). The child was able to move the walker through the front door and down semi-circular steps on the front porch. The steps were made of large uneven stones.

- In two incidents, the children picked their walkers up to continue moving forward down the stairs after the friction strips had stopped the walkers.

- In one incident, it was stated that the child had previously lifted the walker to overcome obstacles but it was unknown if this occurred during the incident.

- In one incident, the child in the walker leaned over sideways and caused the walker to tip over and off the porch even though the walker had initially stopped at the edge. It was reported that the parking stands were engaged at the time of the incident. Because parking stands lift some of the wheels and part of the walker base off of the floor, it is possible some of the friction strips under the walker base failed to contact the floor.

RESULTS OF WALKER TESTING
(Tab D)

The Division of Mechanical Engineering in the Directorate for Laboratory Sciences conducted testing to explore possible reasons why a few stair-fall incidents involved walkers designed to meet the new performance requirements. One concern was that the walkers would not meet the pass/fail criteria as specified in the ASTM performance requirements. For the ASTM test, the walker is released from a distance that is 14.6 inches (370 mm) from the edge of the platform. The walker fails if it continues off the test platform when released or falls off the test platform when the tip-over test is conducted. The staff developed a test plan to determine the actual starting distance from the edge of the test platform where a walker would fail. The staff tested one walker collected during the special study that was involved in an actual stair-fall incident. The staff also tested three additional walkers: a model similar to the one in the stair-fall incident, a newer model from the same manufacturer, and a third model from another manufacturer. Except for the incident sample, three units were tested for each walker model.

The average distance to failure, based on a series of five test runs for each walker, ranged from 16.6 inches to 23.2 inches. Statistical analysis of the test data by the staff of the Division of Hazard Analysis showed that all models passed the performance test at travel distances greater than 14.6 inches (i.e., a simulated speed greater than four feet per second).

For several of the unexplained stair-fall incidents the floor at the top of the stairs was carpeted. Since the ASTM specified test platform surface is wood, the staff conducted some exploratory testing to determine the effect of carpeting on walker performance. Tests on carpet produced no failures at travel distances up to 32.6 inches. This much greater distance to failure was due to the slower speed of the walker on the carpeted surface and to greater "friction" between the carpet fibers and the friction strip materials used on the base

of the walker. Based on these results, the staff concluded that it is very unlikely that carpeting at the top of the stairs was a contributing factor in these incidents.

American Academy of Pediatrics Policy Statement
(Tab E)

In September 2001, the American Academy of Pediatrics, Committee on Injury and Poison Prevention (Committee), published a policy statement on baby walkers (*Pediatrics,* Pp. 790-792). The Committee concluded: "Because data indicate a considerable risk of major and minor injury and even death from the use of infant walkers, and because there is no clear benefit from their use, the American Academy of Pediatrics recommends a ban on the manufacture and sale of mobile infant walkers." The Committee recommends use of stationary activity centers as a safer alternative to mobile infant walkers.

In their policy statement, the Committee recommended that CPSC should closely monitor the compliance with the voluntary standard. The Committee expressed concern that nearly 40 percent of the new baby walkers sold in the United States are manufactured by firms that do not belong to the JPMA. The CPSC staff notes that the AAP concern about the level of compliance is based on outdated information. The staff recently confirmed with the JPMA that complying walkers manufactured by JPMA members account for more than 98 percent of the walkers available for sale in the U.S. As mentioned previously, CPSC does monitor compliance and has already initiated corrective actions with firms found to be importing non-complying walkers.

The Committee also recommended that CPSC should collect data on children injured while using walkers that are in compliance with the voluntary standard. The CPSC staff notes that at the time the AAP policy statement was published, the Committee did not have the benefit of the results of the NEISS special studies conducted from 1999 through 2001. The results of these studies indicate that less than 15 percent of baby walker stair-fall injuries treated in emergency rooms involved walkers designed to meet the new stair-fall requirements. Most of the walker-related injuries were associated with old-style walkers manufactured prior to publication of the ASTM requirements. The staff will continue to monitor walker incidents and provide information to the ASTM Subcommittee on Infant Walkers. If the staff identifies patterns of failure, the staff would recommend that the ASTM Subcommittee explore revisions to the standard to further reduce the likelihood of walker-related stair-falls.

Regulatory Activity in Canada

There are no current standards in Canada that address the hazard of children falling down stairs in a baby walker. Several years before publication of the ASTM stair-fall performance requirements, the Canadian Juvenile Products Association (JPA) published a voluntary ban on walkers. Only walkers wider than a typical interior doorway were not subject to the ban. Due to the smaller market base in Canada, no "wide" walkers were manufactured for sale at that time. This essentially resulted in a "de-facto" ban of walkers in Canada. At the present time, the JPA is no longer in existence and therefore the voluntary ban is no longer in force. Major Canadian retailers have continued to honor the ban but smaller retailers are beginning to sell both old-style and new-style baby walkers.

The CPSC staff has been talking with Health Canada staff over the past few months about their plans to propose a mandatory ban of the sale of all baby walkers in Canada. They are currently in the process of completing a risk management analysis and a cost/benefit analysis. They are also conducting some testing of new and old-style walkers using the ASTM stair-fall performance requirements. In the next six months, they expect to publish a notice of the proposed ban in the *Canada Gazette*, with a 60-day public comment period.

OPTIONS

A. Terminate the mandatory rulemaking proceeding for baby walkers.

The Commission may wish to terminate the proceeding if it determines that compliance with the voluntary standard has adequately reduced the risk of stair-fall injury and that it is likely there will continue to be substantial industry compliance with the voluntary standard in the future. If the Commission elects to terminate the proceeding, it may wish to inform the public of the decision and the basis for it. The staff provides a draft Federal Register notice at Tab F that would accomplish this objective.

B. Direct the staff to prepare a draft notice of proposed rulemaking (NPR).

If the Commission determines that a mandatory action may be reasonably necessary to address the risk of children falling down stairs in walkers, the Commission may wish to direct the staff to prepare a draft NPR.

CONCLUSIONS AND RECOMMENDATION

The staff recommends that the Commission terminate the mandatory rulemaking proceeding on baby walkers. Walker-related injuries have declined steadily since the staff began working on this issue with the ASTM Subcommittee on walkers. Between 1995 and 2000, the number of injuries has decreased by 63 percent, from 20,100 to 7,400. A preliminary review of baby walker-related injuries for 2001 indicates a continued decrease in the estimated number of overall injuries and specifically in the estimated number of stair-fall injuries. The staff expects the number of stair-fall related injuries to continue to decline as new walkers replace non-complying walkers in U.S. households. Based on the CPSC staff's special studies, most of the stair-fall related injuries involve walkers that do not meet the new performance requirements. The staff will continue to monitor walker-related incidents.

The staff is confident that there is now, and that there will be in the future, substantial voluntary industry compliance with the requirements. According to the Juvenile Products Manufacturers Association, complying walkers account for more than 98 percent of the walkers available for sale in the U.S. The staff believes the high level of voluntary compliance with the ASTM stair-fall requirements has contributed to the substantial reduction in walker-related injuries. The staff will continue to monitor the importation and retail sales of walkers to assure that they meet the ASTM stair-fall requirements.

TAB A

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

Date: March 14, 2002

TO : Barbara J. Jacobson Project Manager, Baby Walkers

THROUGH: Hugh M. McLaurin, Associate Executive Director for Engineering Sciences
Patricia L. Hackett, Acting Director, Division of Mechanical Engineering (ESME)

FROM : M. Kumagai, ESME

SUBJECT : ASTM F977 Voluntary Standard for Baby Walkers Description and Rationale

Description of the ASTM Stair-Fall Performance Requirement

The stair fall performance requirement in ASTM F977 was published in early 1997. The purpose of the stair fall requirement was to minimize the likelihood of a child in a walker falling down a staircase. The standard requires a walker carrying a CAMI[1] infant dummy (Mark II) to remain on a test table when pulled across the edge of the table. The walker is tested in the forward, backward and sideward direction using a 17-18 lb_m and a 28-29 lb_m dummy to represent the youngest and oldest user.

Figures 1 and 2 are schematics of the forward test set-up. Figure 1 shows the top view of the walker on the table at the start of a forward facing test, and Figure 2 shows the side view. The test set-up for the backward and sideward tests is similar. A rope is passed over a pulley and attached to the walker. An 8 lb mass is attached to the opposite end of the rope where it is free to fall to the ground. The walker is positioned at a specified distance from the edge of the table and then released. The 8 lb mass pulls the walker and dummy towards the end of the table at a simulated speed of 4 ft/s in the forward and rearward direction and a 2 ft/s speed in the sideward direction.

[1] This Civil Aeromedical Institute (CAMI) Infant Dummy, Mark II, was constructed in accordance with the Department of Transportation Specification dated April 29, 1975.

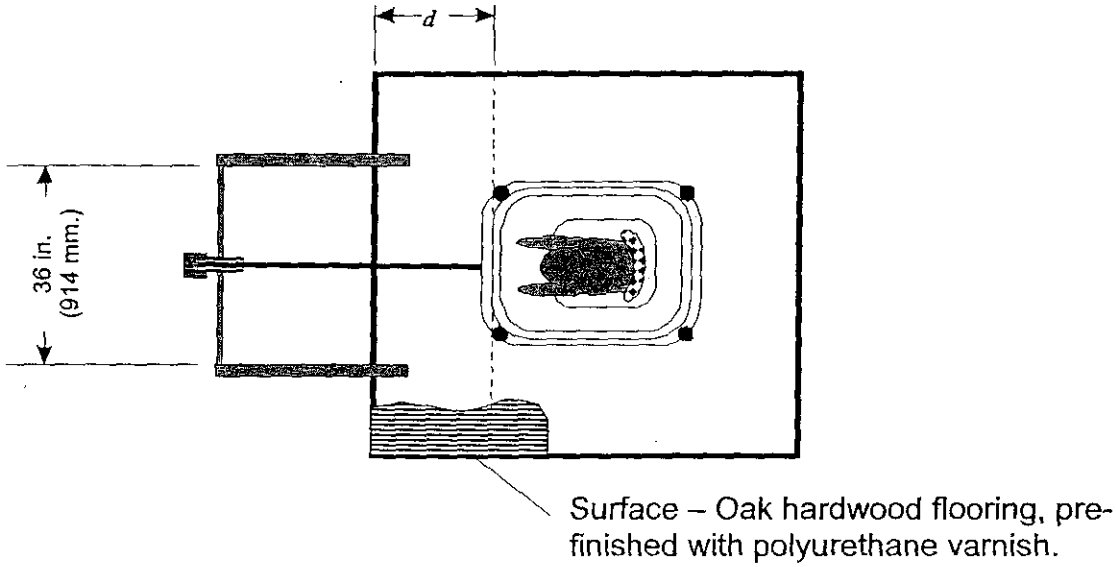


Figure 1. Top View of Walker Test Set-up.

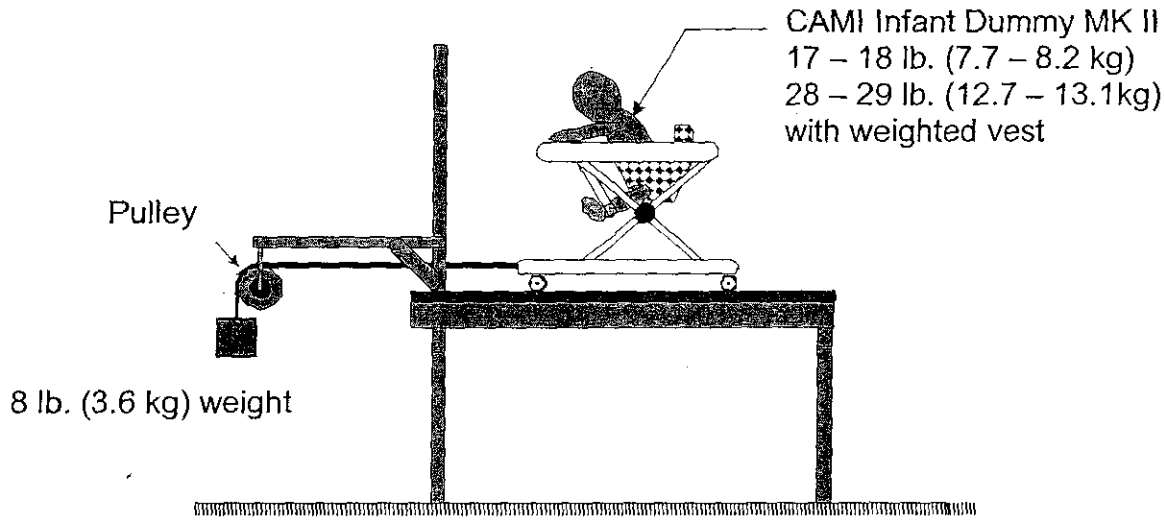


Figure 2. Side View of Walker Test Set-up.

The walker fails if it passes through the 36-inch wide opening at the end of the table and falls to the floor. An additional tip-over test is performed if the walker stops on the edge of the test platform. The tip-over test simulates a child leaning over the outward edge of the walker. The CAMI dummy is removed from the walker and a downward force of 17 lb is applied as shown in figure 3. The walker fails if it falls off the platform. The tip-over test procedure is not conducted when the walker is facing rearward.

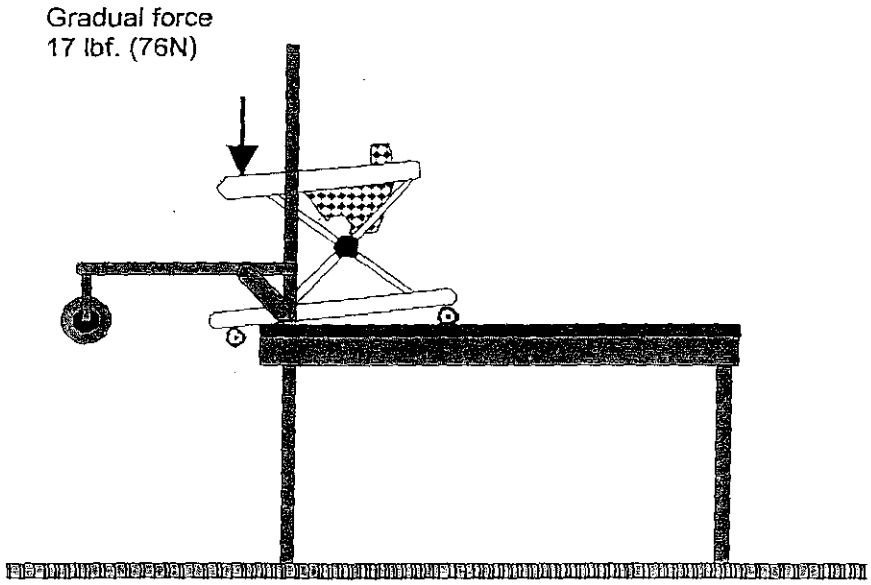


Figure 3. Walker Tip-over Test.

Rationale for Test Parameters

The test parameters were developed by the ASTM stair fall working group. Parameters were based on the results of a 1995 CPSC special study[2] and actual force and speed measurements of children using walkers.

Propulsion Force Generated by the Child in a Walker

The ASTM working group tested ten children, ages 6 ½ – 11 months, weighing from 15 to 23 lbs, by placing them in walkers on several different floor surfaces and measuring the force generated by the children to move the walker. The maximum force recorded was 7.5 lb. The working group determined that 8 lbs would be the maximum force a child could generate in a walker. Pulling the walker with an 8 lb falling test mass simulates the force that a child generates to propel the walker.

Test Surface

The test surface was selected based on typical flooring in U.S. homes that would result in the lowest friction force and highest velocity for the walker. The ASTM working group measured the friction force of a friction material commonly used in walker designs against typical surfaces such as hardwood flooring, linoleum and carpet. The lowest friction force measured was the oak hardwood floor with a polyurethane finish. A child in a walker would achieve higher speeds on a hard smooth surface than on a soft, more resistant, surface such as carpet.

---

[2] "Report on Baby Walker Incidents," Boudreault, May 1995.

Walker Speed and Direction

The ASTM working group tested seven children in walkers and measured a maximum speed of 4.02 ft/s. The children tested were judged by the working group to be very active in a walker. Additionally, top speeds were sustained for only very brief moments under ideal conditions, such as smooth floors with ample space to develop maximum velocities. The working group determined that 4 ft/s would be the maximum speed a child could achieve in a walker and that the walkers should be tested in the forward and rearward direction at this speed. The working group did not directly measure the speed of children in walkers moving in the sideward direction. Incidents documented in the CPSC special study did not suggest walkers falling down stairs in the sideward direction. Nevertheless, the working group chose to incorporate a requirement to test the walker in the sideward direction at a speed of 2 ft/s.

The distance ***d*** from the walker to the edge of the test table is the distance required to accelerate a walker and dummy to 4 ft/s in the forward and rearward direction and 2 ft/s in the sideward direction. The working group assumed that the walker's mass was 8 lb, the child's mass was either 17 or 28 lb, and the walker had normal caster wheels with normal rolling friction. The appendix shows the calculations used to derive the distance ***d*** from the walker to the edge of the test table.

Test Dummy

The test is performed using a 17 - 18 lb CAMI Infant Dummy (Mark II), which represents the 50th percentile mass of a 6-8 month old child. The test is also performed using the CAMI with a weighted vest for a combined mass of 28 lb. This represents the 95th percentile 12-15 month old child. Analysis of the results of the 1995 CPSC special study showed that 97% of stair fall incidents involved children less than 15 months of age.

Tip over Test

The 17 lb downward force applied at a specified distance from the inside edge of the walker's tray simulates a child leaning forward or sideways over the edge of the seating area as shown in Figure 3. This weight represents the 95th percentile upper body weight of children age 12-15 months.[3] The tip-over sequence is not included in the rearward-facing test since the height of the seat back prevents a child from leaning backward in a walker. The tip-over test is applied after the walker stops on the edge of the test table. The test was designed to ensure that walkers are stable once stopped at the edge of the step.

Stairway Entrance

The 36-in. opening at the end of the test table simulates an opening such as a doorway or hallway in front of the stairway. The 1995 CPSC staff special study of walker incidents showed approximately 80% of the openings the walker passed through prior to going over the steps were 36 in. or less.

[3] 17 lb. = 3/5 of 28 lb., the 95th percentile weight of 12-15 month old children.

Adequacy of the Requirement

Five U.S. firms are currently manufacturing walkers that meet the new ASTM stair fall requirement. All of these walkers have received JPMA Certification. This means that they have been tested by independent laboratories for compliance with all mandatory and voluntary standards. In addition, CPSC Engineering staff tested these walkers to verify that they meet the new stair fall requirement.

The walkers are designed to stop at the edge of the step. Friction strips are attached to the underside of the base as shown in figure 4. If the walker's wheel passes over the edge of the step the base and friction strip contact the step. Due to the weight of the walker/child, the friction between the friction strip and floor is sufficient to stop the walker's motion. Compared to conventional walkers, the base for the walkers that meet the stair fall requirement is usually longer in the forward-aft dimension. The occupant seating area is usually positioned aft of the center of the base as shown in Figure 5. This places the center of gravity farther away from the edge of the step and provides additional stability to prevent the walker from tipping over after it stops at the edge of the step.

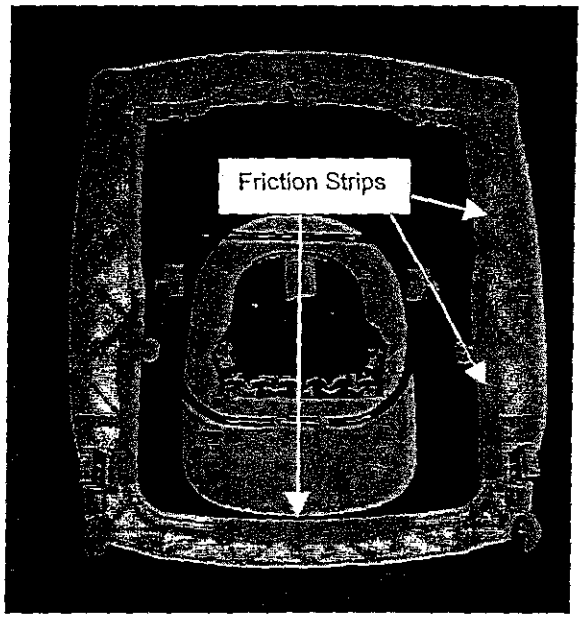


Figure 4. Friction strips on underside of walker base.

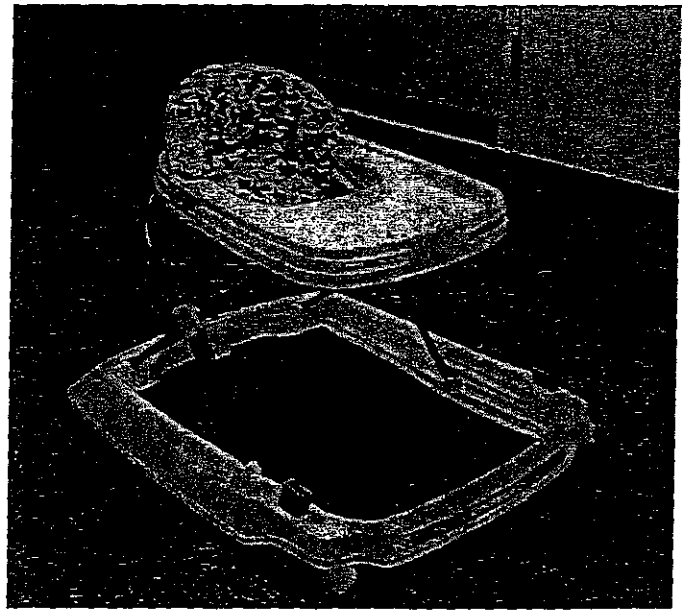


Figure 5. Occupant position aft of the center of the base.

Engineering Sciences (ES) believes that the ASTM stair fall performance requirement is a reasonable simulation of a child in a walker moving through the opening of a stairway and across a stair step. The requirement specifies stringent test parameters such as maximum speed, maximum force, and a tip-over test. ES believes that general consumer use of complying walker designs has reduced the number of injuries associated with children falling down stairs in walkers.

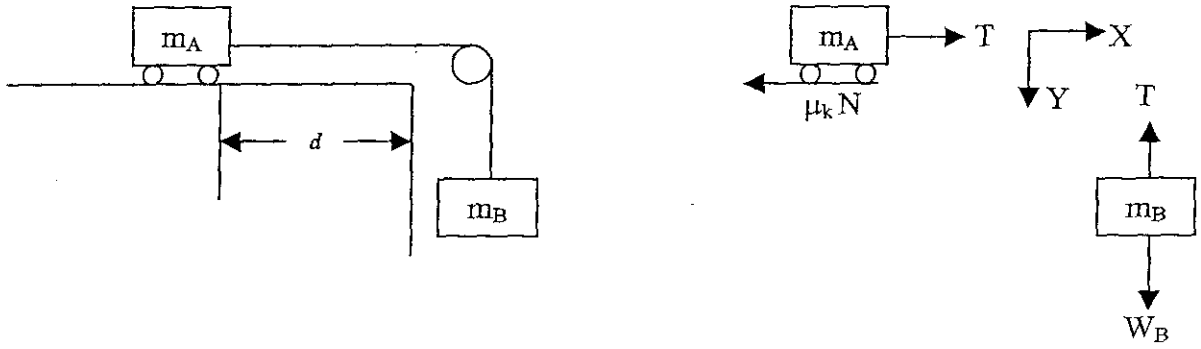
Appendix – Walker Test Speed Calculation

Calculation based on ASTM walker working group notes (6-2-95 and 1-12-96)

Terms
1. Normal force N = the weight of the walker and occupant.
2. Tension in cable = T.
3. Acceleration in X direction = a_x.
4. Acceleration in Y direction = a_y.
5. Weight of drop weight = W_B.

Assumptions
1. Dynamic coefficient of friction, μ_k = **.05**
2. Mass of drop weight, $\mathbf{m_B}$ = **8 lb.**
3. Mass of CAMI MK II (17 lb.) + mass (8 lb.), $\mathbf{m_A}$ = **25 lb.**
4. Maximum velocity of walker at edge of platform, $\mathbf{V_f}$ = **4 ft/s.**

Free body diagram:



Summation of Forces in the X direction and solve for T:

$T - \mu_k N = m_A (a_x)$
$T = m_A (a_x) + \mu_k N$

Summation of Forces in the Y direction and solve for T:

$W_B - T = m_B (a_y)$
$T = -m_B (a_y) + W_B$

Solve for acceleration: $a_x = a_y = a$

$m_A (a) + \mu_k N = -m_B (a) + W_B$
$a = (W_B - \mu_k N) / (m_A + m_B)$

$a = [8 \text{ lb} - .05(25 \text{ lb})] / [(25 \text{ lb.} + 8 \text{ lb.})/32.2 \text{ft/s}^2]$
$a = 6.59 \text{ ft/s}^2$

Solve for distance *d* from the edge:

$V_f^2 - V_o^2 = 2ad$
$(4\ ft/s)^2 - 0 = 2(6.59\ ft/s^2)\ d$
$d = 1.21$ ft. = **14.6 in.**

Calculation for distance *d* for CAMI with weighted vest (28 lb):

Assumptions: same as above except $\mathbf{m_a = 36\ lb}$ **and** $\mathbf{N = 36\ lb_f}$

Solve for acceleration:
$a = (W_B - \mu_k N) / (m_A + m_b)$

$a = [8\ lb - .05(36\ lb)] / [(36\ lb. + 8\ lb.)/32.2 ft/s^2]$
$a = 4.53\ ft/s^2$

Solve for distance *d* from the edge:

$V_f^2 - V_o^2 = 2ad$
$(4\ ft/s)^2 - 0 = 2(4.53\ ft/s^2)\ d$
$d = 1.76$ ft. = **21.2 in.**

TAB B

UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

TO : Barbara Jacobson, HS, Project Manager, Baby Walkers 05 APR 2002

THROUGH: Warren J. Prunella, AED, EC

FROM : Elizabeth W. Leland, EC

SUBJECT : Baby Walkers: Compliance with the Voluntary Standard and Walker Alternatives: Extent of Substitution for Walkers

This memorandum provides information about the extent of compliance of baby walkers with the stair-fall requirements of the voluntary standard and the extent to which walker alternatives are being substituted for baby walkers. Although the information was gathered in calendar year 2000, a February 2002 update indicates that the market has changed little since then. Specific updated information is noted throughout the memorandum, where appropriate.

The information provided here is based on a review of U.S. Consumer Product Safety Commission (CPSC) documentation, an Internet Web site search, and a review of Federal government trade statistics. In addition, the CPSC Directorate for Economic Analysis (EC) staff reviewed trade press, contacted industry and trade association representatives, and reviewed private-sector survey information on the purchase and use of walkers by new and expectant mothers.

Background

When the stair-fall requirements of the ASTM voluntary standard F977 were published in early 1997, manufacturers began to produce new designs that would prevent baby walkers from falling down stairs. Some baby walkers were manufactured with a base large enough to prevent the walker from fitting through most residential door openings. Others were designed with features such as special wheels and/or "friction strips" under the walker base, so that the baby walker would stop at the edge of a step, before it fell down a set of stairs. These newly designed walkers continue to provide the traditional unique features of a baby walker, namely mobility (babies can move from one physical location to another) and portability (some walkers can be easily packed, folded, and carried from one location to another).

In addition to making walkers that met the new voluntary requirements, some manufacturers had already been producing, and others began to produce, products that are known in the industry as "stationary activity centers" or "walker alternatives".[1] These products continue to

[1] One manufacturer of walkers and walker alternatives refers to its traditional walker as a "mobile entertainment center", while the walker alternative is referred to as a "stationary entertainment center".

provide portability, as do traditional walkers, but provide only limited mobility. The baby is seated in the product in a similar orientation as that of a baby walker. However, stationary activity centers have a flooring surface so that the child's feet do not contact the floor. The baby can bounce up and down or rotate 360^0 in the seat, but cannot move from one physical location to another, thus eliminating the potential to fall down stairs.

A. Extent of Baby Walker Compliance with the Voluntary Standard

Information gathered by CPSC staff indicates that there is a high rate of compliance with the new ASTM standard for baby walkers and that when consumers purchase a new walker, there is a strong likelihood that it will have been manufactured to the new ASTM standard. This conclusion is based on the information presented below.

Baby walkers that are sold in retail stores in the U.S. are made by domestic and foreign manufacturers. EC staff gathered information about these companies and their products in order to determine the extent to which their products comply with the voluntary standard.

There are five current domestic manufacturers of baby walkers. The term "manufacturer" as used in this memorandum includes a U.S. company that

- produces a walker, including all component parts, in its own manufacturing plant,
- designs the walker and outsources the manufacture of the walker to another company, either inside or outside the U.S., or
- purchases parts from other companies, inside or outside the U.S., and then assembles the walker in its own manufacturing plant.

Table 1 lists the domestic manufacturers of baby walkers identified by EC staff in September 2000. The recent EC update indicates that these same five manufacturers continue to be the only domestic manufacturers of baby walkers. As in the year 2000, all of these manufacturers continue to be members of the Juvenile Products Manufacturers Association (JPMA) and make baby walkers certified by JPMA to meet the requirements of the voluntary standard. (Two additional companies have become members of the JPMA certification program for baby walkers since September 2000, but their current Web site product catalogs did not show any baby walkers.)

In 2000, an Internet search indicated that a few foreign exporters and a few domestic importers might be distributing non-complying walkers to firms in the United States. The CPSC Directorates for Compliance and Field Operations staff contacted these companies. Based on the information provided by those companies, CPSC staff is aware of about 65,000 non-complying walkers that were distributed in the United States between 1997 and 2001. This is about 1.0 percent of all baby walkers sold during those years.

In the U.S., baby walkers generally can be purchased in mass merchandise stores, mid-range-priced department stores, chain toy stores, infant and child specialty shops, baby superstores, catalog showroom stores, and the Internet. Table 2 lists the retailers affiliated with the domestic manufacturers of baby walkers. The information in this table shows that the large and well-known regional and national retailers, as well as smaller independent specialty stores,

sell walkers made by JPMA-certified manufacturers. Industry representatives have indicated that retail stores in general require that the baby walkers they sell be certified to the JPMA standard.

Moreover, the retailers listed in Table 2, which require JPMA certification, constitute the type of establishment where most baby furniture (including walkers) is purchased, according to the Baby Products Tracking Study[2] that was published in early 2000. The types of stores mentioned as the most likely places of purchase by new and expectant mothers were baby superstores (such as Babies "R" Us and Burlington Baby Depot), mass merchandisers (such as Kmart, Wal-Mart, and Target), and mid-range department stores (such as Sears and J.C. Penney). Thus, it is highly likely, if not certain, that the retailers that are the most likely places of purchase sell only JPMA-certified walkers, leading to a high rate of compliance in the marketplace.

According to the Baby Products Tracking Study, about five percent of new and expectant mothers purchase baby furniture through the Internet. Table 3 lists domestic Web sites that were identified in the year 2000 as selling baby walkers directly to consumers. Of the 15 identified domestic Web sites, 11 sold complying walkers and four sold both complying and non-complying walkers. A recent update of Web sites that sell baby walkers showed that all walkers sold on those sites appear to comply with the voluntary standard. Retail prices on Internet Web sites for complying walkers ranged in 2000 from $30 to $50, while retail prices for non-complying walkers ranged from $30 to $60. The price range appears to have widened in 2002, but only slightly.

Approximately one million baby walkers are sold in the United States every year. Industry representatives believed in 2000 that the "the rate of compliance exceeds 98% of walkers available for sale"[3]; that information was recently confirmed in a telephone update with industry representatives. The information gathered independently by CPSC EC staff appears to confirm industry's statement.

B. Walker Alternatives: Substitution for Baby Walkers

EC staff collected and reviewed information about the manufacturers of walker alternatives and their products, compared sales and price data for both products, reviewed usage information from the Baby Products Tracking Study, and researched the availability of walker alternatives on the retail market.

Table 4 lists the four manufacturers of walker alternatives in the year 2000. Three of these four companies also manufactured baby walkers.

EC staff estimated annual unit sales of baby walkers and walker alternatives. These estimates, which are shown in Tables 5(a) and 5(b), indicate that sales of walkers decreased by about four percent in 1997, the year the voluntary standard was published, stabilized in 1998 at the 1997 level, and decreased by four percent in 1999. Sales of walker alternatives decreased by

[2] The Baby Products Tracking Study is conducted for American Baby, Inc. (publishers of *American Baby* magazine) by Bruno and Ridgway Research Associates, Inc. The study is conducted every three years (the most recent study was published this year) to investigate expectant and new mothers' purchase and usage of various products associated with pregnancy and motherhood.

[3] This information was provided in written correspondence, dated April 3, 2000, from JPMA to CPSC staff.

about five percent in both 1997 and 1998, but increased by about 11 percent in 1999 to again reach the 1996 level. This information suggests that a small amount of substitution may have occurred in 1999. However, the sales estimates of baby walkers and baby walker alternatives are only approximate since they are based on sales by retailers that account for about 65 to 70 percent of sales.

Industry representatives believe that more families are purchasing both a baby walker and a walker alternative. Some families may use the walker on the lowest level of the house, where there are no steps, and use the alternative on the upper level(s) of the house, where there are steps down to a lower level. Industry representatives also believe that families consider each product to serve a very different purpose, that is, the walker allows the child to have mobility, while the alternative keeps the baby safely entertained in one location.

Walker alternatives appear to be as readily available to consumers as are baby walkers. In 2000, the manufacturers listed in Table 4 sold their products in the same stores that sold baby walkers. A search of Internet Web sites, as shown in Table 6, indicates that nearly as many Web sites sold alternatives as sold walkers. Of the 15 Web sites listed in Table 6 that sold alternatives, 12 also sold walkers.

Retail prices of baby walker alternatives may be somewhat higher than those of walkers. As noted earlier, walkers cost consumers about $30 to $60 in 2000. Retail prices of walker alternatives were higher. Internet Web site prices for alternatives ranged in 2000 from $35 to $100. Walker alternative prices may be higher, in part, because they have more toys than baby walkers, as well as other features, such as various height adjustments.

Summary

This memorandum has discussed two issues: the extent of compliance of baby walkers with the stair-fall requirements of the voluntary standard for baby walkers and the extent to which walker alternatives are being substituted for baby walkers.

Domestic firms manufacture only walkers that comply with the ASTM standard; thus, any non-complying walkers that are available to the consumer are walkers that are imported into the U.S. The number of imported walkers that is available to the consumer is relatively small, constituting, according to industry, less than 2 percent of the walkers available for annual retail sale. EC staff has found no current data that would seem to contradict that information.

Sales data indicate that, from 1996 through 1999, sales of baby walkers decreased each year, with the largest decreases occurring in 1997, the year that the new requirements of the voluntary standard were published, and in 1999. Sales of walker alternatives decreased by about five percent in both 1997 and 1998, but increased by about 11 percent in 1999. The 1999 data suggest that some substitution is starting to occur, but some families may be buying stationary baby walker alternatives to use in conjunction with already-owned walkers.

TABLE 1
DOMESTIC MANUFACTURERS OF BABY WALKERS: SEPTEMBER 2000[1]

Company Name	JPMA Certified?	Model Names/Numbers
Baby Trend, Inc. 2019 S. Business Parkway Ontario, California 91761 909-773-0018, 800-328-7363 909-773-0108 (Facsimile) *www.babytrend.com*	Yes	#3437 (Zoo Zoo) #3570 (Quilt) # 3547 (Village)
Delta Enterprise Corporation 175 Liberty Avenue Brooklyn, New York 11212 718-385-8455 718-385-1000 (Facsimile) *www.deltaenterprise.com*	Yes	24 Sound, Look, Listen, Learn 278-80 24 Sound, Look Listen Learn 278-66 Airplane 277-70 Musical Toy Tray 275-61 with Toy Bar 274-61 without Toy Bar 270-61
Graco Children's Products, Inc. (Newell Rubbermaid, Inc.) Main Street Elverson, Pennsylvania 19520 610-286-5951 610-286-2894 (Facsimile) *www.gracobaby.com*	Yes	Tot Wheels II 4431 (Doodles) Tot Wheels II 4437 (Hey Diddle Diddle) Tot Wheels IV 4033 (Blue Animals)
Kolcraft Enterprises, Inc. 3455 West 31st Place Chicago, Illinois 60623 773-247-4494 773-247-8607 (Facsimile) *www.kolcraft.com* (under construction)	Yes	Room Rover Tot Rider 1 Tot Rider 2

(continued)

TABLE 1
DOMESTIC MANUFACTURERS OF BABY WALKERS: SEPTEMBER 2000
(continued)

Company Name	JPMA Certified?	Model Names/Numbers
Safety 1st, Inc. (Dorel Industries, Inc.) *Physical Location:* 45 Dan Road Canton Commerce Center Canton, Massachusetts 02021 *Mailing Address:* 210 Boylston Street Chestnut Hill, Massachusetts 02167 617-964-7744, 800-739-7233 617-332-0125 (Facsimile) *www.safety1st.com*	Yes	Mobile 4 Wheelin' Walker - #45701 Mobile 4 Wheelin' Walker - #45704 Baby Steps Walker #45901 Baby Steps Walker with Toys #45902 Deluxe Baby Steps Walker w/Activity Trays #45903 Deluxe Baby Steps Walker w/Electronic Activity Trays #45904

[1] The baby walker market has been in flux during the past few years, with several manufacturers leaving the market. Some Internet trade directories that were posted before 1999 and some documents published before 1999 include companies that no longer are in the market. Verification with corporate representatives or through current Web sites was made to develop the list above.

Source: Internet Web site search
Juvenile Products Manufacturers Association 1999 Exhibitor Listing,
Small World Directory 2000 (December 1999 issue of *Small World)*
Telephone conversations with manufacturers
Various product directories

TABLE 2
DOMESTIC MANUFACTURERS AND THEIR AFFILIATED RETAILERS/CATALOGS
AUGUST 2000

Manufacturer	*Retailer*
Baby Trend, Inc.	J.C. Penney, Toys "R" Us, Babies "R" Us, Burlington Coat Factory, The Right Start catalog, One Step Ahead catalog, More Than One catalog,
Delta Enterprise Corporation	Toys "R" Us, Service Merchandise, Sears, Burlington Coat Factory, Caldors, Target, Venture, Hills, Meyers, Little Things, Independent specialty stores
Graco Children's Products, Inc.	Bed Bath & Beyond, Burlington Coat Factory, Kmart, Target, Toys"R" Us, Sears, J.C. Penney, Babies "R" Us, Wal-Mart, Sam's Club, Value-Mart, Montgomery Ward, Kids Warehouse, Independent specialty stores
Kolcraft Enterprises, Inc.	independent specialty stores, J.C. Penney
Safety 1st, Inc.	Sears, Burlington Coat Factory, J.C. Penney, Kmart, Walmart, Target, Toys "R" Us, Montgomery Ward

Source: Internet Web site information for each manufacturer and conversations with corporate representatives.

TABLE 3
U.S. ELECTRONIC COMMERCE SITES: BABY WALKERS
AUGUST 2000

Online Web Site Name	*Brands of Walkers*
babyage.com	Graco Baby B (Nogatco)
babybestbuy.com	Delta Luv
babycenter.com (mommy-mall.com) (secretbox.com) (biznest.com)	Safety 1st
babyexpressstores.com	Baby Trend
babygear.com (americasbaby.com) (babyfurniture.com) (babygifts.com)	Delta Luv Graco Baby B (Nogatco) Safety 1st Kolcraft
thebabyoutlet.com	Graco Safety 1st
babystyle.com (e-style.com)	Graco
babysupercenter.com (cribs 2 go)	Nogatco
babysupermall.com	Baby Trend Graco
bunnies.com	Graco Kolcraft
comfortliving.com (4yourback.com) (ahcp.com) (newmothers.com)	Safety 1st Graco Delta Luv

(continued)

TABLE 3
U.S. ELECTRONIC COMMERCE SITES: BABY WALKERS
AUGUST 2000
(continued)

Online Web Site Name	*Brands of Walkers*
dmart2000.com	Baby Trend Safety 1st Delta
lycos.pointshop.com	Graco Kolcraft Delta Nogatco
onlinebabystore.com	Delta
the babynet.com	Baby Trend Graco

Source: Internet Web site search, August 2000

TABLE 4
MANUFACTURERS OF WALKER ALTERNATIVES: SEPTEMBER 2000

COMPANY NAME	*MODEL NAMES/NUMBERS*
Baby Trend, Inc. 2019 S. Business Parkway Ontario, California 91760 909-773-0018, 800-328-7363 909-773-0108 (Facsimile) *www.babytrend.com*	Play in Place 3643 Leo Green Play in Place 3666T Safari Play in Place 3617T Crayon Play-in-Place 3727 New Crayon
Evenflo Co., Inc. 707 Crossroads Court Vandalia, Ohio 45377 937-415-3300, 800-837-9201 937-415-3115 (Facsimile) *www.evenflo.com*	Exersaucer Plus Ultrasaucer Supersaucer
Graco Children's Products, Inc. (Newell Rubbermaid, Inc.) Main Street Elverson, Pennsylvania 19520 610-286-5951 610-286-2894 (Facsimile) *www.gracobaby.com*	Bouncing Entertainer Rocking Base Entertainer 2 -in-1 Convertible Activity Center
Safety 1st, Inc. (Dorel Industries, Inc.) *Physical Location:* 45 Dan Road Canton Commerce Center Canton, Massachusetts 02021 *Mailing Address* 210 Boylston Street Chestnut Hill, Massachusetts 02167 617-964-7744, 800-739-7233 617-332-0125 (Facsimile) *www.safety1st.com*	Bouncin' Buggy #45608 Super Bouncin' Buggy #45607 Play-dee Bug #45613

Source: Internet Web site Search
Juvenile Products Manufacturers 1999 Exhibitor listing
Small World Directory 2000 (December 1999 issue of *Small World*)
Telephone conversations with manufacturers

TABLE 5 (a)
BABY WALKERS: ESTIMATED UNIT SALES, 1995 - 1999

Year	Estimated Unit Sales (Thousands)	Percent Change From Previous Year
1995	1367.3	
1996	1361.2	- 0.4
1997	1309.2	- 3.8
1998	1301.2	- 0.6
1999	1249.3	- 4.0

TABLE 5 (b)
WALKER ALTERNATIVES: ESTIMATED UNIT SALES, 1996 - 1999

Year	Estimated Unit Sales (Thousands)	Percent Change From Previous Year
1996	911.9	
1997	870.1	- 4.6
1998	823.9	- 5.3
1999	911.9	+ 10.7

Source: CPSC EC staff estimates based on industry information.

TABLE 6
U.S. ELECTRONIC COMMERCE SITES: STATIONARY ACTIVITY CENTERS
AUGUST 2000

Online Web Site Name	*Brands*	*Walkers, too?*
babyage.com	Graco Baby Trend Evenflo	Yes
babycenter.com (mommy-mall.com) (secretbox.com) (biznest.com)	Graco Safety 1st Evenflo	Yes
babyexpressstores.com	Graco	Yes
babygear.com (americasbaby.com) (babyfurniture.com) (babygifts.com)	Evenflo	Yes
babyhut.com	Safety 1st	No
thebabyoutlet.com	Graco Safety 1st Evenflo	Yes
babyuniverse.com	Graco, Evenflo Safety 1st	No
babyproductsonline.com	Safety 1st	No
babystyle.com (e-style.com)	Graco, Evenflo	Yes
babysupermall.com	Evenflo, Graco	Yes
bunnies.com	Evenflo	Yes

(continued)

TABLE 6
U.S. ELECTRONIC COMMERCE SITES: STATIONARY ACTIVITY CENTERS
AUGUST 2000
(continued)

comfortliving.com (4your back.com) (ahcp.com) (newmothers.com)	Evenflo	Yes
dmart2000.com	Baby Trend	Yes
lycos.pointshop.com	Evenflo	Yes
thebabynet.com	Evenflo, Graco	Yes

Source: Internet search
Manufacturer's product literature