

LOG OF MEETINGDIRECTORATE FOR ENGINEERING SCIENCESCPSA 6 (B) Cleared
AS/1994

SUBJECT: 5 Gallon Open Head Containers (Buckets)
ASTM Subcommittee F15.31
Performance Task Group Meeting

DATE OF MEETING: May 2, 1994

PLACE: Business Center
O'Hare Airport
Chicago, IL

LOG ENTRY SOURCE: George F. Sushinsky, ESEL

DATE OF ENTRY: May 6, 1994

COMMISSION ATTENDEES:

George Sushinsky, ESEL

NON-COMMISSION ATTENDEES:

William H. Roper, Chairman and CEO, Ropak Corporation
Ed Rowe, G.K.M. Inc, Davies Can Co.
S. Wayne Fast, Jr., P.E., Hazardous Materials Specialist,
PPG Industries
Charlie Byers, Manager, Product Safety, U. S. Gypsum Corp.

SUMMARY OF MEETING:

The meeting convened at 10:00 a. m. Mr. Roper, as chairman of the task group, provided a handout containing "talking points" for seven categories related to the overall issue of child drowning in buckets. (See attachment.) The meeting format consisted of addressing each topic and discussing the relevance of the items to the drowning hazard. The first five pages of talking points centered the discussion around background issues related to both the incident and the product, and Commission data and analysis of the hazard. The last two pages of talking points were specifically concerned with potential "performance" standards, as they are currently written in the ASTM draft document, and alternative proposals advanced for discussion. The tone of the meeting was business-like and cordial. Much of the discussion was either of a review or exploratory nature. The following will present the discussion of major issues within each talking point category.

Issue

The items under this topic outline the scope of the hazard as considered in the ASTM draft standard. In this context these items were accepted without much discussion.

Cause

These items are also as covered in the scope of the ASTM standard. They are directly related to the typical incident scenario and other data developed in the epidemiological analysis. The primary discussion under this heading centered on the appropriateness of using a volume measurement (4 to 6 gallons) to describe the hazardous product. It was decided that the volume measurement should be eliminated and the dimensional scope under consideration should be changed to the height and diameter measurements of potentially hazardous products. This is the approach used by HF in their analysis of a rigid body interaction with a container. Mr. Roper asked if the CPSC could provide the task group with updated information on the dimensional parameters for bucket height and diameter, liquid height, age range, and child height and weight. Mr. Sushinsky was asked to provide the task group with the updated information.

Background

The background items are based on CPSC data. The task force had specific interest in the reduction of annual deaths from 50 to 40. (Are these related to labeling and I&E efforts since 1989?) There were also discussion of the apparent fact that this drowning hazard is unknown in Canada. Mr. Sushinsky noted that the Commission was looking into the Canadian question and volunteered to provide information as it became available.

The industry members also requested information on child drowning statistics associated with other products. Mr. Roper offered to initiate an overall I&E effort with other affected industries to address child drowning. He requested a "one-on-one" meeting with the chairman to discuss his "consumer activist" stance on an I&E effort.

Exposure

The industry's annual production estimate of 175 to 200 million units in the 4 to 6 gallon range dwarfs production at either 3½ or 6½ gallons such that there is no change in the estimated production range if they are included. Mr. Sushinsky noted that the number of children in the exposed category was much less than the number estimated. Eight million represents the total population of children under the age of two. In the 8 to 14 month old range, the population estimate is closer to 2 million children.

Human Factors A

The industry had questions about the use of the 5th and 95th percentile statistics instead of the range of statistics provided by the incident victims or the 50th percentile child in the

extreme age ranges. I referred to such a practice as providing a safety factor. The task group also discussed the acceptability of targeting the remedy at a test protocol rate of less than 100 percent. This precedent was discussed at previous task group meetings by J. Blair, the subcommittee chairman, in reference to test protocols for poison prevention packaging.

At this point Mr. Rowe offered an "aside" to the discussion. He noted that there was a tremendous amount of economic pressure in the industry to eliminate the labeling. To meet labeling requirements will generally require a capitalization of new equipment, that once it is purchased will slow the implementation of the performance standards. This sentiment was joined by Mr. Roper who noted economic differences between short term labeling using manual labor and the purchase of equipment for labeling on a long term basis. With the CPSC citing limited and interim benefits from labeling and pushing for a performance standard, the industry, as a whole, appears reluctant to invest heavily in a labeling effort. Mr. Roper suggested that the money needed for labeling would be better spent on an I&E campaign.

Human Factors B

The discussion centered around the effectiveness of a safety campaign in Phoenix. The campaign, "Just a Second," could be a model for an I&E effort. Mr. Roper was trying to obtain more information about the campaign.

Review Standards

The provisions of the ASTM draft standard were reviewed. All provisions in the ASTM draft were seen to have possibilities with the exception of Photodegradation. Mr. Roper and Mr. Rowe are to conduct tests to redraft the flow requirements for the Liquid Retention class. The recycling rate was reduced to 80 percent due to current maximum rates of recycling for materials with cash incentives (45 to 55 percent) and the limitations of the infrastructure to provide post consumer recycled (PCM) material at legislated rates (25 percent). It was reasoned that a recycling rate of 80 percent produced an effective but unknown reduction in exposure greater than 80 percent.

Alternative Standards

A list of other potential provisions for the performance standard were discussed. Mr. Sushinsky agreed that the cover retention, combustion, and hazardous categories provided possible exemption categories. These and the provision in the draft ASTM standard were estimated to cover about 10 percent of the production of five-gallon buckets. Mr. Roper expressed the need to include labeling as a performance provision to cover the rest of the production and to make the voluntary standard saleable to

the subcommittee. Mr. Sushinsky noted that this was not an acceptable solution for the CPSC staff. He suggested that it was also somewhat inconsistent with Mr. Roper's prior statements about better use of labeling resources in an I&E effort. The I&E effort listed under alternatives was judged to be separate from any performance requirements. Again Mr. Roper requested a meeting with the chairman to discuss I&E efforts.

The next meeting of the task group was tentatively scheduled for June 13, the same date as the full subcommittee meeting, in Washington DC. The meeting adjourned at 3:45 p.m.

ISSUE

IS 8 to 14 month old infant drownings in plastic shipping pails in and around household.

IS NOT infant drownings in steel shipping pails.

IS NOT infant drownings in toilets and bathtubs.

IS NOT infant drownings in pools and spas.

IS NOT infant drownings in household products such as diaper pails, waste containers, mop buckets, etc.

IS NOT infant drownings in other miscellaneous containers or receptacles.

CAUSE

Is a 4 to 6 gallon plastic shipping pail

Rated capacity as marked on the bottom

Used in and around the household

Partially filled with liquid contents

Placed on the floor or at ground level

Into which an 8 to 14 month old infant topples by losing his/her balance

While said infant is left unattended by the infant care provider.

BACKGROUND

Current extrapolation by CPSC is that 40 drownings per year occur in buckets.

Prior extrapolation by CPSC was 50 drownings per year.

Buckets primarily, but ^{not} exclusively are composed of 4 to 6 gallon plastic shipping pails, per CPSC.

Drownings occur 70% within minority groups, per CPSC.

Drownings occur primarily within ^{lower} ~~poorer~~ socioeconomic part of society, per CPSC.

Equivalent problem does not exist in Canada, which is a relatively comparable society, albeit smaller.

Use of plastic shipping pails in Canada is relative to that in the U.S., both in application and relative volume.

Plastic shipping pails used in Canada are identical to those in the U.S., excepting for exact size; i.e. as 20 liter vs 5 gallon, etc.

EXPOSURE

Industry estimates approximately 200 million units per year enter marketplace in 4 to 6 gallon size range.

Industry estimates substantially more than one billion units and growing are now in secondary use, which includes household use.

Life cycle of plastic shipping pails in secondary use is indefinite and, given reasonable care, could well exceed ~~5 to~~ 10 years.

At 40 drownings per year, and an estimated 8 million children under 2 years of age, the risk is 5 fatalities per million, according to the CPSC.

HUMAN FACTORS A

Relationship...

of infant height, weight and lack of physical coordination at early stages of standing by pulling oneself up and walking while holding onto something.

to height, top opening width and stability of plastic shipping pail as partially filled with liquid.

Provide physical conditions under which an infant may topple into container.

HUMAN FACTORS B

Lack of attentiveness by infant care provider.

Due to lack of awareness of danger (many unaware, per CPSC).

Or to acting carelessly.

Or to acting deliberately.

Provide situation in which infant drowning may occur.

DISTRACTION of child care provider

REVIEW STANDARDS

Twice voted down were the following ASTM proposed performance standards which were, in general, products of the CPSC.

Stability: To make unstable is contra to needs of marketplace as it fills, stacks and transports pails and instability creates new work and environmental hazards.

Accessibility: Possibility of designing to meet some needs with specific products, but not an overall answer.

Liquid Retention: A pail that cannot hold liquid is generally useless; a removable plug does not permit meeting other regulations and is beyond the control of pail producer and filler; does have limited use when sold as trash collection container [should specify hole diameter and height from bottom].

Photodegradation: Impractical as cannot control shelf life during filler's distribution and may cause hazard; additives work contra to performance requirements of other regulations.

Cleanability: Not very relevant to plastic as plastic generally cleans well.

Recycling: A possibility for some users, but at a substantially lesser achievement rate than 95%.

ALTERNATIVE STANDARDS

Cover Retention: Not intended and difficult to remove without the use of hand tools.

Export: Pail or filled pail exported from U.S.

Handleless: Pail without handle based on limited probability of reuse as "cleaning" pail.

Combustion: Pails designated for packaging of materials to be combusted as a unit.

Hazardous: Pails used for regulated materials wherein disposition of container is pre-determined per regulation.

Labels: Pail with label as awareness education.

Education: Campaign to address awareness issue directed into target population; can possibly broaden campaign to include other causes, some of which have considerably more negative experience.