



U.S. CONSUMER PRODUCT SAFETY COMMISSION
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TRANSMITTED VIA EMAIL

Ms. Kitty Pilarz
ASTM Ad Hoc Wording Task Group Chair
100 Barr Harbor Drive
P.O. Box C700
West Conshohocken, PA 19428-2959

Dear Ms. Pilarz:

Staff of the U.S. Consumer Product Safety Commission (“CPSC”) has been engaged for some time now in ASTM International (“ASTM”) voluntary standard activities, including recommending revisions to the “Marking and Labeling” and similar sections of ASTM voluntary standards. CPSC staff also has been heavily involved in the activities of the ASTM Ad Hoc Wording Task Group (“Ad Hoc TG”), whose stated mission is to develop uniform and consistent recommended language to be applied to similar portions of various ASTM voluntary standards. Staff appreciates the efforts put forth by you and the other task group members, and believes that the Ad Hoc TG is beginning to make progress on minimum warning label format requirements to be considered for use in individual ASTM voluntary standards. To this end, CPSC staff would like to follow up on the views discussed previously in meetings and formally state its approach to evaluating the effectiveness of a product’s warning labels based on format, content, and placement requirements.

ANSI Z535.4, *American National Standard for Product Safety Signs and Labels*, is the primary U.S. voluntary consensus standard for the design, application, use, and placement of on-product warning labels. This standard consolidates a number of previous approaches to presenting safety information on consumer products, and the ANSI Z535.4 committee’s membership includes human factors experts and those involved in human factors research. The requirements and recommendations in the standard are evidence-based, and are supported by human factors research. In addition, literature on the design and evaluation of on-product warnings regularly cites ANSI Z535.4 as the minimum set of requirements that product labels should meet, and the

The views expressed in this letter are those of CPSC staff and have not been reviewed or approved by, and may not necessarily reflect the views of, the Commission.

scope of ANSI Z535.4 is broad enough to encompass nearly all products, including children's products and toys.¹

For the reasons stated above, CPSC staff recommends that the warning label format requirements for ASTM voluntary standards should meet or exceed the requirements and recommendations specified in ANSI Z535.4, unless there is a compelling reason to deviate from ANSI Z535.4. Staff notes that at least two ASTM voluntary standards already reference ANSI Z535.4 explicitly:

- ASTM F1917 – 12, *Standard Consumer Safety Performance Specification for Infant Bedding and Related Accessories*: Section 8.2 states, in part, that, “The label(s) shall be in the ANSI format, which would include a delineated signal word panel containing the safety alert symbol before the signal word and a contrasting background.” Section 2.1 references ANSI Z535.4.
- ASTM F2950 – 14, *Standard Safety and Performance Specification for Soccer Goals*: Section 12.2 states, “The label shall have the word WARNING in accordance with ANSI Z535.4 with respect to color and letter height.”

In addition, several other ASTM voluntary standards include individual ANSI Z535.4-type requirements, even if the standards do not cite ANSI Z535.4 by name. For example:

- ASTM F1235 – 15, *Standard Consumer Safety Specification for Portable Hook-On Chairs*: Section 8.3 specifies warning label formatting that includes (1) separate signal word and message panels, (2) background color for the signal word panel, (3) black mixed-case text on a white background for the message panel, and (4) black borders surrounding the individual panels.
- ASTM F2057 – 14, *Standard Safety Specification for Clothing Storage Units*: The required safety label cited in section 4.6 (and shown in Figure 2) is compliant with ANSI Z535.4 and includes such features as (1) separate signal word and message panels, (2) a safety orange as the background color for the signal word panel, (3) black mixed-case text on a white background for the message panel, and (4) black borders surrounding the individual panels.
- ASTM F2236 – 14, *Standard Consumer Safety Specification for Soft Infant and Toddler Carriers*: Section 8.3.3 specifies warning label format that includes (1) separate signal word and message panels, and (2) solid line borders surrounding the individual panels.
- ASTM F977 – 12, *Standard Consumer Safety Specification for Infant Walkers*: Section 8.2.4.1 specifies warning label format that includes the use of (1) a signal word panel

¹ The scope of ANSI Z535.4 reads, “This standard sets forth requirements for the design, application, use, and placement of safety signs and labels on a wide variety of products” (2.1). The only exception identified by the standard states, “Should any of the requirements of this standard conflict with federal, state, or municipal regulations, such conflict shall not invalidate other requirements of this standard” (Section 3.2).

surrounded by a black border and with an orange background, and (2) the remaining text printed in black on a white background.

Although CPSC staff believes that the simplest way to incorporate effective warning label format requirements into ASTM standards would be to state within the relevant ASTM standard that on-product warnings must conform to the requirements and recommendations of ANSI Z535.4, some Ad Hoc TG members have expressed concern that the standard's use of mandatory, advisory, and permissive language in its requirements is confusing, and that the flexibility allowed by this approach actually makes it more difficult for manufacturers and testing laboratories to determine compliance with CPSC regulations. CPSC staff believes that a reasonable alternative approach might be to adopt the individual mandatory and advisory requirements of ANSI Z535.4, but to make all of these requirements mandatory. This would ensure that the resulting warning label meets or exceeds the requirements of ANSI Z535.4, while allowing manufacturers to easily assess whether the label conforms to an ASTM standard that includes these requirements.

CPSC staff believes that for product hazards that cannot be effectively addressed through performance requirements, an effective warning label can further reduce the risk of injury associated with the product. When assessing the effectiveness of a product's warning label, CPSC staff considers additional factors beyond formatting, including whether the warning:

- is likely to capture the attention of the consumer;
- is likely to maintain the attention of the consumer;
- is likely to be understood, and to effectively communicate the hazards, consequences of exposure to the hazards, and appropriate steps that consumers should take to avoid the hazards;
- is consistent with consumers' prior beliefs and attitudes, or can influence those beliefs and attitudes; and
- is likely to motivate the desired behavior.

The effectiveness of a warning label, therefore, is dependent not only on the warning label format, but also on the content and placement of the warning label. For example, a warning label should be located where it is readily visible to the consumer in time for that consumer to respond in a way that will avoid the hazard. A warning label that is not visible when the hazard is present may not allow consumers to respond appropriately to avoid the hazard. A warning label that instructs consumers to take some precautionary behavior without also explaining the associated hazard or its consequences may lead consumers to believe that the recommended behavior is not relevant to them or is unlikely to lead to serious injury. Warning label content, format, and placement all play an important role in improving the likelihood that consumers will take appropriate action to avoid those hazards that cannot be prevented through performance requirements.

CPSC staff consistently relies upon the incident data for individual products, as well as the above factors, in evaluating a warning label's effectiveness. Because products covered by individual voluntary standards have unique hazard patterns based on the data and unique consumer use patterns, CPSC staff also reiterates its position that the warning label requirements in individual

ASTM standards should not be limited to the recommendations put forth by the Ad Hoc TG. This position is consistent with the stated mission of the task group, which is to develop recommended language for similar portions of ASTM standards, but not to limit the types of requirements that one could seek within those sections or to prevent additional requirements beyond those recommended by the task group from being considered or adopted by individual subcommittees. In fact, during its September 2, 2015, meeting, the Ad Hoc TG agreed that the recommended wording developed by the task group for various sections was not intended to represent the “sum total” of what would appear in a particular section of a standard; rather, the recommended wording serves as a structural framework that can be added to or, with good reason, subtracted from for particular applications.

Furthermore, Section 104(b) of the Consumer Product Safety Improvement Act of 2008 (“CPSIA”) requires the Commission to promulgate consumer product safety standards for durable infant or toddler products that are substantially the same as applicable voluntary standards, or more stringent than such voluntary standards if the Commission concludes that more stringent requirements would further reduce the risk of injury associated with the product. Thus, in the context of warning labels, the question considered by CPSC staff when examining and assessing an ASTM voluntary standard subject to rulemaking under section 104 of the CPSIA is not whether the current requirements are merely adequate, but rather, whether more stringent performance requirements and warning label requirements would further reduce the risk of injury. Staff will consider additional, more stringent content, placement, or format requirements for these products if we believe that such warning label requirements are appropriate, are supported by scientific and technical literature, and would further reduce the risk of injury.

Thank you for your efforts to improve consistency among ASTM juvenile product voluntary standards. CPSC staff welcomes any comments with regard to this information and looks forward to productive task group meetings.

Sincerely,

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CC: Len Morrissey, ASTM F15 Staff Manager
Scott Heh, Acting CPSC Voluntary Standards Coordinator