

## CONSUMER PRODUCT SAFETY COMMISSION

### 16 CFR Parts 1112 and 1260

[CPSC Docket No. CPSC–2013–0028]

#### Safety Standard for Operating Cords on Custom Window Coverings

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The U.S. Consumer Product Safety Commission (CPSC) has determined preliminarily that custom window coverings with accessible operating cords that are longer than 8 inches pose an unreasonable risk of strangulation to children 8 years old and younger. To address this risk of strangulation, the Commission proposes a rule under the Consumer Product Safety Act (CPSA) to require that operating cords on custom window coverings meet the same requirements as operating cords on stock window coverings, as set forth in the applicable voluntary standard. Thus, the rule proposes that operating cords on custom window coverings must be cordless, inaccessible, or 8 inches or shorter in length in any use position. If finalized, operating cords on custom window coverings would require testing and certification to the rule under section 14 of the CPSA. Moreover, operating cords on custom window coverings that meet the definition of a “children’s product” would require third party testing by a CPSC-accredited third party conformity assessment body. Accordingly, the rule also proposes to amend the Commission’s regulation on requirements pertaining to third party conformity assessment bodies to add “Safety Standard for Operating Cords on Custom Window Coverings” to the list of rules that require third party testing.

**DATES:** Written comments must be received by March 23, 2022.

**ADDRESSES:** Direct comments related to the Paperwork Reduction Act aspects of the proposed rule to the Office of Information and Regulatory Affairs, the Office of Management and Budget, Attn: CPSC Desk Officer, fax to: 202–395–6974, or email [oir\\_submission@omb.eop.gov](mailto:oir_submission@omb.eop.gov). Submit all other comments on the proposed rule, identified by Docket No. CPSC–2013–0028, by any of the following methods:

**Electronic Submissions:** Submit electronic comments to the Federal eRulemaking Portal at: <https://www.regulations.gov>. Follow the instructions for submitting comments. CPSC typically does not accept

comments submitted by electronic mail (email), except through <https://www.regulations.gov>. CPSC encourages you to submit electronic comments by using the Federal eRulemaking Portal, as described above.

**Mail/Hand Delivery/Courier Written Submissions:** Submit comments by mail/hand delivery/courier to: Division of the Secretariat, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone: (301) 504–7479.

Alternatively, as a temporary option during the COVID–19 pandemic, you can email such submissions to: [cpsc-os@cpsc.gov](mailto:cpsc-os@cpsc.gov).

**Instructions:** All submissions must include the agency name and docket number for this notice. CPSC may post all comments without change, including any personal identifiers, contact information, or other personal information provided, to: <https://www.regulations.gov>. Do not submit electronically: Confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If you wish to submit such information, please submit it according to the instructions for mail/hand delivery/courier written submissions.

**Docket:** For access to the docket to read background documents or comments received, go to: <https://www.regulations.gov>, and insert the docket number, CPSC–2013–0028, into the “Search” box, and follow the prompts.

**FOR FURTHER INFORMATION CONTACT:** Rana Balci-Sinha, Director, Division of Human Factors, Directorate for Engineering Sciences, Office of Hazard Identification and Reduction, Consumer Product Safety Commission, National Product Testing and Evaluation Center, 5 Research Place, Rockville, MD 20850; telephone: 301–987–2584; [rbalcisinha@cpsc.gov](mailto:rbalcisinha@cpsc.gov).

#### SUPPLEMENTARY INFORMATION:

##### I. Introduction

###### A. Overview of the Proposed Rule

The purpose of the proposed rule is to address the risk of strangulation to children 8 years old and younger associated with hazardous operating cords on custom window coverings.<sup>1</sup> The Commission issues this notice of proposed rulemaking (NPR) using its authorities in sections 7 and 9 of the CPSA, 15 U.S.C. 2056 and 2058, to

create a new mandatory standard for operating cords on custom window coverings. Due to the ongoing fatal and nonfatal incidents associated with window covering cords, high severity of the outcomes (death and disability to children), proven technical feasibility of cordless products, the implementation of stronger operating cord requirements for stock window coverings already on the market, and the ineffectiveness of warnings and safety devices for this class of products, the Commission proposes to regulate operating cords on custom window coverings. The proposed rule would require operating cords on custom window coverings to meet identical requirements for operating cords on stock window coverings, as set forth in section 4.3.1 of ANSI/WCMA A100.1—2018, American National Standard for Safety of Corded Window Covering Products (ANSI/WCMA–2018). The ANSI standard requires stock window coverings to have:

- (1) No operating cords (cordless) (section 4.3.1.1);
- (2) inaccessible operating cords (section 4.3.1.3); or
- (3) operating cords shorter than 8 inches in any use position (section 4.3.1.2).

In a separate, concurrent rulemaking under section 15(j) of the CPSA, the Commission is proposing to deem a “substantial product hazard” (SPH), as defined in section 15(a)(2) of the CPSA: (1) The presence of hazardous operating cords on stock window coverings; (2) the presence of hazardous inner cords on stock and custom window coverings; or (3) the absence of a required manufacturer label. Both NPRs are based on information and analysis contained in CPSC staff’s September 29, 2021, Staff Briefing Package: Notice of Proposed Rulemaking for Corded Window Coverings (Staff’s NPR Briefing Package), available at: <https://www.cpsc.gov/s3fs-public/NPRs-Add-Window-Covering-Cords-to-Substantial-Product-Hazard-List-Establish-Safety-Standard-for-Operating-Cords-on-Custom-Window-Coverings-updated-10-29-2021.pdf>?  
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###### B. Background and Statutory Authority

Window coverings are “consumer products” within the jurisdiction of the CPSC, and subject to regulation under the authority of the CPSA, because consumers use and enjoy window coverings in or around a permanent or temporary household or residence, and in schools. See 15 U.S.C. 2052(a)(5). Section 7(a) of the CPSA authorizes the

<sup>1</sup> On December 14, 2021, the Commission voted 4–0 to issue this notice of proposed rulemaking. Commissioner Feldman issued a statement in connection with his vote.

Commission to promulgate a mandatory consumer product safety standard that sets forth performance or labeling requirements for a consumer product if such requirements are reasonably necessary to prevent or reduce an unreasonable risk of injury. 15 U.S.C. 2056(a). The proposed rule sets forth performance requirements for operating cords on custom window coverings. The proposed performance requirements would make operating cords on custom products meet the same requirements for stock window coverings in section 4.3.1 of ANSI/WCMA–2018, to prevent an unreasonable risk of injury, strangulation and death, to children 8 years old and younger.

Section 7(b)(1) of the CPSA requires the Commission to rely on a voluntary standard, rather than promulgate a mandatory standard, when compliance with the voluntary standard would eliminate or adequately reduce the risk of injury associated with a product, and it is likely that products are in substantial compliance with the voluntary standard. 15 U.S.C. 2056(b)(1). As described in section II.E of this preamble, custom window coverings likely substantially comply with the voluntary standard, ANSI/WCMA–2018. However, section 4.3.2 of ANSI/WCMA–2018, which applies to custom window coverings, does not adequately address the risk of injury associated with operating cords on custom window coverings, because the ANSI standard allows operating cords on custom window coverings to be accessible to children, and to be longer than 8 inches, which presents an unreasonable risk of strangulation to children 8 years old and younger. CPSC staff advises that the operating cord requirements proposed in the NPR would address 100 percent of the operating cord incidents associated with custom window coverings.

Section 9 of the CPSA specifies the procedure that the Commission must follow to issue a consumer product safety standard under section 7 of the CPSA. In accordance with section 9, the Commission may commence rulemaking by issuing an advance notice of proposed rulemaking (ANPR) or a notice of proposed rulemaking (NPR). The Commission issued an ANPR for corded window coverings, including stock and custom products, in January 2015 (80 FR 2327 (January 16, 2015)). The Commission is moving forward with two NPRs because the voluntary standard now addresses the risk of injury for operating cords on stock window coverings, and inner cords on stock and custom window coverings. For the hazards addressed by the

voluntary standard, the Commission is issuing a separate rule under section 15(j) of the CPSA, leaving for this NPR to address, under sections 7 and 9 of the CPSA, operating cords on custom window coverings.

Section 9 authorizes the Commission to issue an NPR, including the proposed rule and a preliminary regulatory analysis, in accordance with section 9(c) of the CPSA. We request comments regarding the risk of injury identified by the Commission, the regulatory alternatives being considered, and other possible alternatives for addressing the risk of injury. 15 U.S.C. 2058(c). The preliminary regulatory analysis must include:

- A preliminary description of the potential benefits and costs of the rule, including benefits and costs that cannot be quantified, and the analysis must identify who is likely to receive the benefits and bear the costs;
- a discussion of the reasons any standard or portion of a standard submitted to the Commission in response to the ANPR was not published by the Commission as the proposed rule or part of the proposed rule;
- a discussion of the reasons for the Commission's preliminary determination that efforts submitted to the Commission in response to the ANPR to develop or modify a voluntary standard would not be likely, within a reasonable period of time, to result in a voluntary standard that would eliminate or adequately reduce the risk of injury addressed by the proposed rule; and
- a description of alternatives to the proposed rule that the Commission considered and a brief explanation of the reason the alternatives were not chosen.

*Id.* Tab K of Staff's NPR Briefing Package, and section V of this preamble, provide the required preliminary regulatory analysis for a mandatory standard on operating cords for custom window coverings.

After issuing an NPR, the Commission will consider the comments received in response to the proposed rule and decide whether to issue a final rule, along with a final regulatory analysis. *Id.* 2058(c)–(f). The Commission also will provide an opportunity for interested persons to make oral presentations of the data, views, or arguments, in accordance with section 9(d)(2) of the CPSA. *Id.* 2058(d)(2).

According to section 9(f)(1) of the CPSA, before promulgating a consumer product safety rule, the Commission must consider, and make appropriate findings to be included in the rule, on the following issues:

- The degree and nature of the risk of injury that the rule is designed to eliminate or reduce;
- The approximate number of consumer products subject to the rule;
- The need of the public for the products subject to the rule and the probable effect the rule will have on utility, cost, or availability of such products; and
- The means to achieve the objective of the rule while minimizing adverse effects on competition, manufacturing, and commercial practices.

*Id.* 2058(f)(1). At the NPR stage, the Commission is making these findings preliminarily, to allow the public to comment on the findings. Section XIII of the preamble contains the Commission's preliminary findings.

Under section 9(f)(3) of the CPSA, to issue a final rule, the Commission must find that the rule is “reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with such product” and that issuing the rule is in the public interest. *Id.* 2058(f)(3)(A)&(B). Additionally, if a voluntary standard addressing the risk of injury has been adopted and implemented, the Commission must find that:

- The voluntary standard is not likely to eliminate or adequately reduce the risk of injury, or
- Substantial compliance with the voluntary standard is unlikely.

*Id.* 2058(f)(3)(D). The Commission also must find that the expected benefits of the rule bear a reasonable relationship to its costs, and that the rule imposes the least burdensome requirements that would adequately reduce the risk of injury. *Id.* 2058(f)(3)(E)&(F). Section XIII of the preamble contains the Commission's preliminary findings on these additional requirements, so that the Commission can collect public comment.

### C. Product Description

#### 1. Overview of Window Covering Products

Window coverings comprise a wide range of products, including shades, blinds, curtains, and draperies. Generally, the industry considers blinds to be “hard” window coverings, composed of slats or vanes, and considers shades to be “soft” window coverings, composed of a continuous roll of material. Both blinds and shades may have inner cords that distribute forces to cause a motion, such as raising, lowering, or rotating the window covering to achieve a consumer's desired level of light control. Manufacturers use inner cords on

window coverings to open and close blinds and shades, using a variety of inputs, including traditional operating cords, motors, or direct-lift of the bottom rail of the product, to manipulate inner cords. Curtains and draperies do not contain inner cords,

but consumers can operate curtains and drapes using a continuous loop operating cord or a wand.

A cord or loop used by consumers to manipulate a window covering is called an “operating cord” and may be in the form of a single cord, multiple cords, or

continuous loops. “Cordless” window coverings are products designed to function without an operating cord, but they may contain inner cords. Figures 1 through 6 explain window covering terminology and show examples of different types of window coverings.

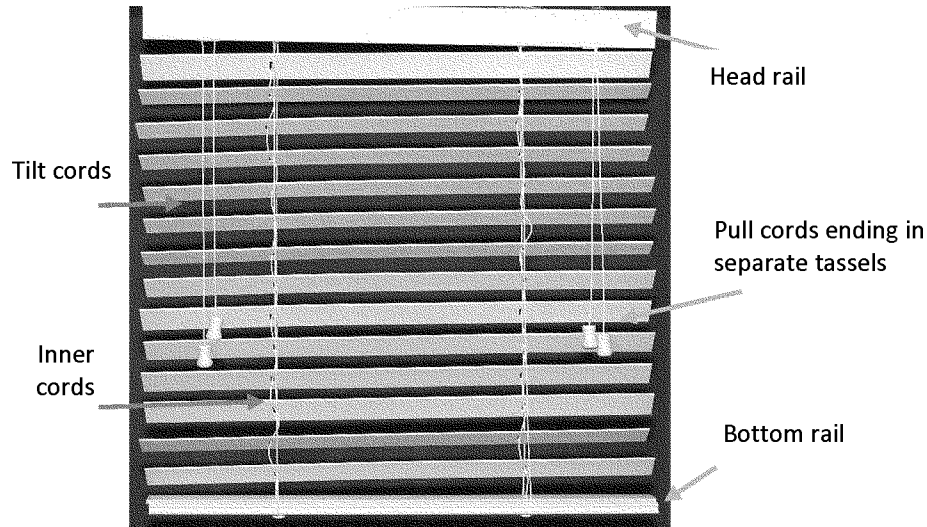


Figure 1. Horizontal blind

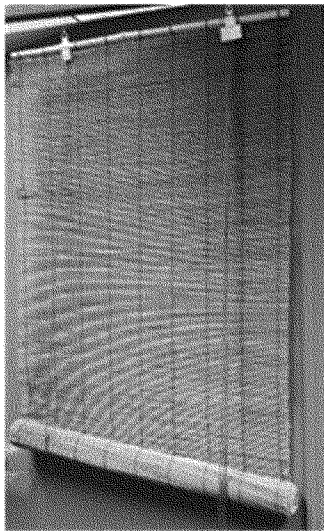


Figure 2. Roll-up shade with lifting

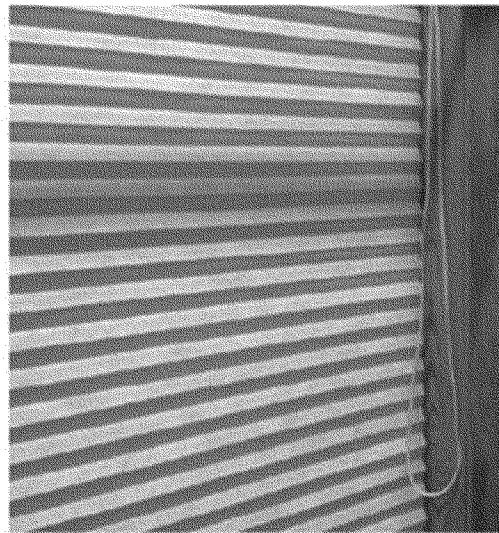


Figure 3. Cellular shade with looped operating



Figure 4. Vertical blind

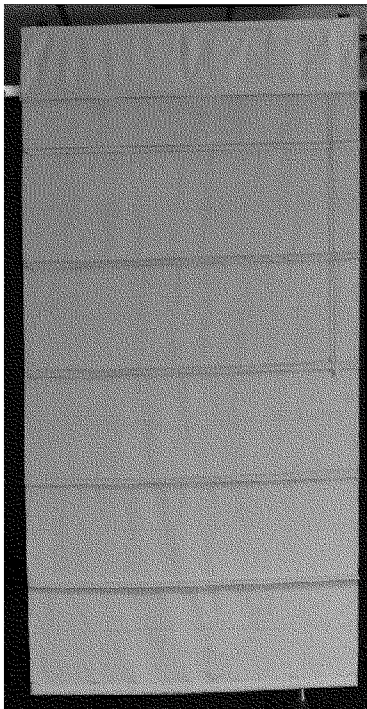


Figure 5. Roman shade



Figure 6. Cordless horizontal blind

Figure 1 shows a horizontal blind containing inner cords, operating cords, and tilt cords. Figure 2 shows a roll-up shade containing lifting loops and operating cords. Figure 3 shows a cellular shade with inner cords between two layers of fabric and operating cords. Figure 4 shows a vertical blind with a looped operating cord to traverse the

blind and a looped bead chain to tilt the vanes. Figure 5 shows a Roman shade with inner cords that run on the back side of the shade and operating cords. Figure 6 is a horizontal blind that is marketed as “cordless” because it has no operating cords, but it still contains inner cords.

Materials used to make shades and blinds include fabric, wood or faux wood, polymers, such as vinyl, and woven materials, such as bamboo. Window covering products are mounted either inside or outside the window frame and can be customized to fit non-standard-sized windows, or for operation when the window frame is

inaccessible, using tools or mobility devices, such as ladders, stools, and lifts. Some window covering types, such as curtains/drapes, shades, and horizontal blinds, can also be customized to fit unusual window shapes, like circles, ovals, trapezoids, and diamonds, but operation may be limited.

Window covering operating systems can vary slightly by window covering type, but all operating systems fit into one of two general categories: Corded or cordless.

## 2. Corded Window Coverings

“Traditional” or “corded” shades and blinds generally have cords located inside the product (inner cord), to the side of the product (operating cord or outer cord), or both. The inner cords between the head rail and bottom rail lift the horizontal slats to adjust light coming through, as in the case of horizontal blinds, or lift fabric and similar materials, as in the case of Roman or pleated shades. The inner cords may be exposed from the front, rear, or bottom of the window covering, or they can be rendered inaccessible, depending upon how the product is constructed. Horizontal blinds and pleated shades generally have two inner cords, one on each side of the blind; but products manufactured for wider windows may require more than two inner cords to be operational.

The outer cord or operating cord allows the user to raise, lower, open and close, rotate, or tilt the window covering. Operating cord systems generally fall into one of three categories: (1) Standard; (2) single cord; and (3) continuous loop. The operating cord in a standard operating system consists of two or more cords and often includes a cord locking device to allow the user to set the height of the window covering. In a single cord operating system, the user can manipulate the window covering with a pull cord. The operating cord in a continuous loop operating system uses a single piece of cord or a beaded metal or plastic chain that is secured to a wall and operates like a pulley. For example, pulling the rear half of the loop will raise the shade, while pulling the front half of the loop will lower the shade.

Although operating systems can vary, some products are more commonly coupled with specific systems. Cellular and pleated shades can have any of the three operating cord systems; in contrast, roller and Roman shades mostly use a standard or continuous loop system. Horizontal blinds are generally coupled with a standard operating system, while vertical blinds

operate by continuous loop. Some curtains and drapes operate by continuous loop along with a traverse rod, which are also within the scope of the rule. However, many curtains and drapes are stationary and do not have operating systems; these products are not within the scope of the rule.

## 3. Cordless Window Products

Virtually every window covering type is available with a “cordless” operating system, which means it has been designed to function without an operating cord.<sup>2</sup> Cordless window coverings may require inner cords, but these can be, and typically are, made inaccessible through a variety of approaches. In lieu of an operating cord, cordless operating systems can be manual or motorized. A manual operating system allows users to lift or lower the window covering with a plastic handle or directly by hand.

A motorized operating system uses a motor and control system to manipulate the window covering, such as a remote control or wall switch. Installation of cordless window coverings that are motorized is more complicated than manual systems because motorized systems require a power source. The power sources for motorized systems, in order of installation complexity are battery-powered, DC plug, solar-powered, and what is commonly called “hardwired.”

The simplest power source for a motorized cordless product is a battery system, which is typically installed near the head rail in a circular tube called a battery wand. Replacement of the batteries can require additional tools, like a screwdriver, step ladder, or stool. Most manufacturers recommend lithium-ion batteries for use in their systems, due to the increased temperature level around window coverings.<sup>3</sup> A DC plug adapter can also be used as a power source and is easy to install. A window covering with a DC plug adapter can be plugged into any standard electrical outlet. Electrical outlets aren’t typically installed near the top of a window. Accordingly, DC plugs may require consumers to use extension cords near the window covering to

reach an available outlet, which some consumers may find unsightly.

Solar-powered, motorized window coverings use a rechargeable battery wand combined with a solar panel to charge the batteries. Installation is about as complex as a typical battery system, but placement of the solar panel is critical to the operation of the window covering. Newer, more advanced versions of solar-powered window coverings can power themselves, while also providing renewable energy. These products are less mature than others and are generally much more expensive.

The most complex to install power source for motorized systems is to wire the window covering directly into the home, commonly called “hardwiring.” The industry does not regard hardwiring window coverings to be a task that consumers can complete. Typically, electricians are required to install these products, which creates higher installation costs for consumers.

## 4. Other Types of Safety Devices

Rather than eliminate the operating cord entirely, some manufacturers offer other devices to isolate the operating cord on custom window coverings. These alternatives include, among others: Retractable cord devices, cord cleats, cord shrouds, cord condensers, and wands. Tab I in Staff’s NPR Briefing Package contains a more detailed description of these devices and how to operate each. As described in section I.C.3 of this preamble, and Tab I of Staff’s NPR Briefing Package, these devices are inadequate to address the risk of injury associated with operating cords on custom window products.

All of these safety devices are currently available for purchase by consumers, or provided by manufacturers, on custom window coverings, but offerings vary by manufacturer. A retractable cord device uses a spring-loaded spool to adjust the length of the pull cord. After the consumer adjusts the pull cord to raise or lower the window covering, the retractable cord device automatically retracts the pull cord back to the bottom of the headrail in an attempt to keep the pull cord out of reach of small children.

Cord cleats are generally composed of transparent or white plastic material in a long, rectangular shape. To be effective, two cord cleats must be installed or anchored to the wall near the window covering at a height out of reach of children. Cord cleats are used in conjunction with operating cords that dangle below the bottom of the window covering. The consumer must wrap the operating cord(s) in an S-shape around

<sup>2</sup> The availability of alternatives to corded window coverings may sometimes be constrained due to size and weight limitations. See Lee, 2014. Through market research, staff found several examples of cordless blinds that are made with a maximum height of 84” and a maximum width of 144” (Tab G of Staff’s NPR Briefing Package).

<sup>3</sup> Window coverings receive direct sunlight for large portions of the day, resulting in higher surface temperatures that can cause the failure of non-lithium-type batteries.

the cord cleats each time the window covering is raised or lowered.

A cord shroud encloses the pull cord or continuous cord loops for various types of blinds and shades with a rigid material, usually plastic. Although the pull cord or continuous loop cords are rendered inaccessible, the consumer can use the cord shroud to raise and lower the window covering. Cord condensers are a small plastic device that the consumer feeds the multiple cords into to condense the pull cord to a single pull cord below where the device is installed. Wands are simple pieces of plastic that the consumer rotates or pulls to operate the window covering in place of a cord.

#### 5. “Stock” and “Custom” Window Coverings Defined in the NPR

This NPR relies on the definitions of window coverings and their features as set forth in the ANSI/WCMA–2018 standard, which currently requires “stock” and “custom” window coverings to meet different sets of operating cord requirements. For the NPR, the definition of a “stock window covering” is based on the definition of “Stock Blinds, Shades, and Shadings” in section 3, definition 5.02 of ANSI/WCMA–2018. A “stock window covering” is a completely or substantially fabricated product prior to being distributed in commerce and as a specific stock-keeping unit (SKU). Even when the seller, manufacturer, or distributor modifies a pre-assembled product, by adjusting to size, attaching the top rail or bottom rail, or tying cords to secure the bottom rail, the product is still considered “stock,” as defined in ANSI/WCMA–2018. Moreover, under the ANSI standard, online sales of a window covering, or the size of the order, such as multifamily housing orders, do not make the product a non-stock product. ANSI/WCMA–2018 provides these examples to clarify that, as long as the product is “substantially fabricated,” subsequent changes to the product do not change its categorization from “stock” to “custom.”

The NPR defines a “custom window covering” using the same definition of “Custom Blinds, Shades, and Shadings” found in section 3, definition 5.01 of ANSI/WCMA–2018, which is “any window covering that is not classified as a stock window covering.” We explain additional definitions in the NPR, including “operating cord,” “cord shroud,” and “rigid cord shroud,” in section IV.A of this preamble.

#### 6. The Window Covering Industry

Based on 2017 data, 1,898 firms were categorized as blinds and shades

manufacturers and retailers (Census Bureau, 2020). Of these, about 1,840 firms (302 manufacturers and 1,538 retailers) are small. In 2020, three manufacturers accounted for almost 38 percent of dollar sales in the U.S. window coverings market (Euromonitor 2021a). Only one of these manufacturers is a publicly held firm. In 2020, the largest global manufacturer and distributor of window coverings reported worldwide net sales of \$3,543 million, with North American window covering sales reported as \$1,703 million. The second largest firm is privately held, and annual reports are not publicly available. Estimates of this firm’s revenue indicate annual U.S. window covering revenue in 2020 of approximately \$728 million (Euromonitor 2021a). The third firm is also privately held, and estimates indicate U.S. window covering revenues in 2020 of approximately \$88 million (Euromonitor 2021a). The remainder of the total market size of \$6.6 billion is attributed to firms that each account for less than 3 percent market share (Euromonitor 2021b).

A recent study conducted for CPSC (D+R, 2021) estimated that in 2019, approximately 139 million residential window coverings were shipped in the United States. Most of these shipments, 59.2 percent, were blinds, while 25.4 percent were shades. When comparing unit sales data to revenue data, CPSC staff found that while custom products account for approximately 44 percent of unit sales, a disproportionate amount of revenue is attributable to custom window covering products. For example, Roman shades, which are sold almost always as custom window covering products, account for 1.9 percent of annual sales in 2019, but generated revenues equal to 2.3 percent of the total.

#### 6. Retail Prices

Retail prices for window coverings vary, depending on the type of the product and retailer. Stock products for common-size window coverings can be purchased at a variety of retailers, such as big box and home furnishing stores, and e-commerce retailers, such as Amazon and Wayfair. The type of material and brand affect the price. According to a study conducted for CPSC by D+R International (2021),<sup>4</sup> weighted average prices for window coverings range from about \$54 to \$94

for shades and from about \$25 to \$250 for blinds.<sup>5</sup> Prices for vertical blinds are generally lower than the prices of horizontal blinds; prices for roller shades are slightly lower than the prices of Roman and cellular shades (D+R International, 2021).<sup>6</sup>

Consumers can purchase custom-sized and custom-designed window coverings from mass merchants, specialty retailers, e-commerce retailers, and in-home consultation firms. Custom coverings include uncommon window covering sizes, such as extremely small (e.g., 9 inches wide x 13 inches high), extremely large (e.g., 96 inches wide x 96 inches high), and other unusual sizes. Retail prices for custom-made window coverings range from \$25 to \$900, but prices can be as high as \$5,000.<sup>7</sup> Typically, retail prices for custom products exceed the price of stock products of similar size and type. Retailers often suggest in-home measuring and evaluation to estimate the price for custom-designed products, because non-standard sizes or non-standard window shapes, or motorized lift systems can require professional installation. Prices for customized window coverings, on average, are higher than similar stock products sold by mass retailers.

#### 7. Window Coverings in Use

CPSC staff created an estimate of custom window coverings in use using multiple data sources. Estimates for the year 2019, are developed from (1) estimates of U.S. residential housing units; (2) estimates of the number of window coverings per housing unit; (3) estimates of the proportion of window coverings in use, by type; (4) estimates of the expected product life of window coverings; and (5) estimates of the proportion of corded custom window coverings sold by type. Based on U.S. Census estimates, approximately 124.1 million residential housing units existed in the United States during the year 2019 (Census Bureau, 2019). Additionally, the D+R (2020) study estimated an average of about 8.17 window coverings per housing unit.<sup>8</sup>

<sup>5</sup> The range for shades is based on average prices for cellular shades, roller shades, Roman shades, and pleated shades. The range for blinds is based on average prices for vinyl blinds, metal blinds, faux-wood blinds, wood blinds, and vertical blinds.

<sup>6</sup> The D+R review of prices and product availability found that stock product prices are generally lower than custom products and that cordless lift systems resulted in an increase in price, except in the case of vertical blinds.

<sup>7</sup> Based on firms’ websites, retail prices for custom-made Roman shades can range from \$300 to \$5,000.

<sup>8</sup> The D+R estimate uses a 2013 market characterization study completed for the U.S.

<sup>4</sup> CPSC contracted with D+R International, which interviewed window covering manufacturers and component manufacturers to collect anecdotal information on the distribution of stock and custom product sales and the impact of compliance with the voluntary standard (D+R International, 2021).

The product of the number of housing units and the average number of window coverings per housing unit suggests that about 1,014 million window coverings may have been in use in the United States (124.1 million housing units  $\times$  8.17 window coverings per housing unit) during 2019.

The distribution of the estimated 1,014 million window coverings in use is created using the 2019 share of

custom product sales to total for each aggregate category.<sup>9</sup> Application of the share of custom product sales to the window coverings in use estimate, amounts to approximately 111 million custom horizontal blinds, 213 million custom shades, 10 million custom vertical blinds, and 179 million custom curtains or drapery.<sup>10</sup> Applying an estimate of 65 percent of custom window covering products in use

having operating and/or accessible cords equates to an approximate total of 332.6 million corded custom window coverings in use. As shown in Figure 7 below, staff estimates that approximately 72 million corded custom horizontal blinds, 138.2 million corded custom shades, 6.4 million corded custom vertical blinds, and 116.1 million corded custom curtains or drapery are in use as of 2019.<sup>11</sup>

FIGURE 7—CUSTOM WINDOW COVERINGS IN USE  
[2019]

Product category [1]	Total product in use [2]	Custom product share of sales (2019) (%) [3]	Custom product in use [4] [col. 2 $\times$ col. 3]	Corded custom product in use [5] [col. 4 $\times$ 0.65]
Horizontal Blinds, All Types .....	340.4	32.52	110.7	72.0
Shades, All Types .....	300.9	70.66	212.6	138.2
Vertical Blinds .....	168.2	5.82	9.8	6.4
Curtains & Drapes .....	178.6	100.00	178.6	116.1
Total .....	1014	.....	511.7	332.6

Department of Energy. The study included a survey of 2,100 households in 13 cities across the United States to collect a representative sample of data on household characteristics, including number of windows, location of windows, the types of window coverings installed, and operation.

<sup>9</sup> Installed base data for window covering products does not differentiate between custom or stock products. A point estimate created from one

year of sales data may distort product in use estimates if there are large fluctuations in sales due to consumer preferences from year to year or if the expected product life of custom products is substantially different than stock products.

<sup>10</sup> Interior shutters are included in the total 1,014 million window covering in use estimate, but because these products are out of scope for the rule,

they are not included in the regulatory analysis later in this report.

<sup>11</sup> This estimate has an implicit assumption that the share of annual sales will equate to a similar share of product in use. Changes in consumer preferences over time, and differences in the expected product life between custom and stock products, could result in significant deviations in this estimate.



#### *D. Hazards Associated With Window Covering Cords*

Window coverings, depending on the type of accessible cords, including

operating cords (meaning pull cords and continuous loop cords), inner cords, and lifting loops, can pose strangulation hazards to children when they are accessible and long enough to wrap

around a child's neck. Figures 8, 9, and 10 below depict the strangulation hazard for different window covering cord types.

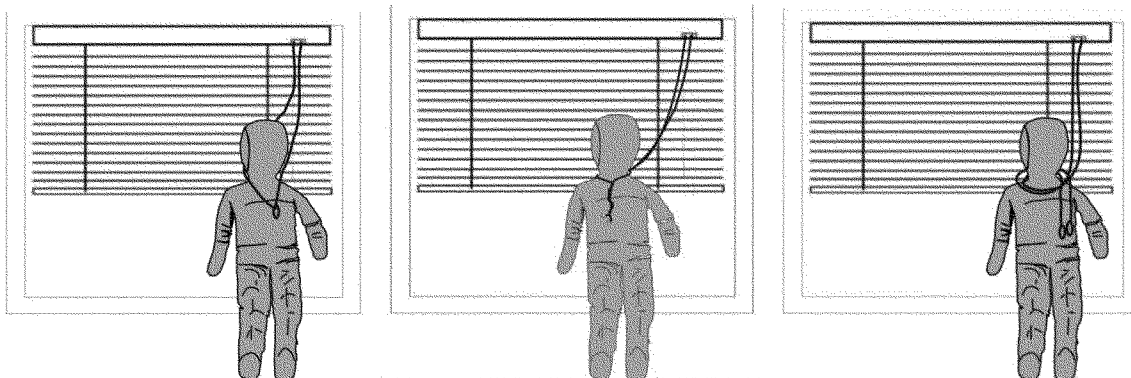


Figure 8. (a) Operating pull cords ending in one tassel (left); (b) operating cords tangled, creating a loop (middle); (c) operating cords wrapped around the neck (right)

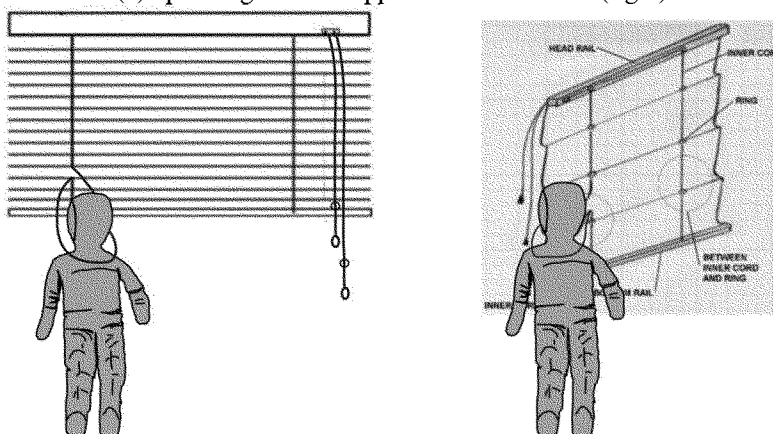
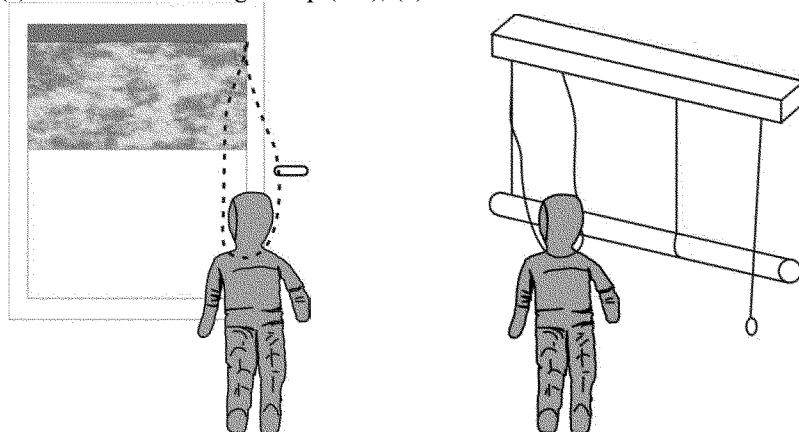


Figure 9. (a) Inner cords creating a loop (left), (b) Inner cords on the back side of Roman shade (right)



Children can strangle from mechanical compression of the neck when they place a window covering cord around their neck. Strangulation due to mechanical compression of the neck is a complex process resulting from multiple mechanisms and pathways that involve both obstruction of the airway passage and occlusion of

blood vessels in the neck. Strangulation can lead to serious injuries with permanent debilitating outcomes or death. If sustained lateral pressure occurs at a level resulting in vascular occlusion, strangulation can occur when a child's head or neck becomes entangled in any position, even in

situations where the body is fully or partially supported.

Strangulation is a form of asphyxia that can be partial (hypoxia), when there is an inadequate oxygen supply to the lungs, or total, when there is complete impairment of oxygen transport to tissues. A reduction in the delivery of oxygen to tissues can result in



permanent, irreversible damage. Experimental studies show that only 2 kg (4.4 lbs.) of pressure on the neck may occlude the jugular vein (Brouardel, 1897); and 3kg to 5 kg (7–11 lbs.) may occlude the common carotid arteries (Brouardel, 1897 and Polson, 1973). Minimal compression of any of these vessels can lead to unconsciousness within 15 seconds and death in 2 to 3 minutes, (Digeronimo and Mayes, 1994; Hoff, 1978; lserson, 1984; Polson, 1973).

The vagus nerve is also located in the neck near the jugular vein and carotid artery. The vagus nerve is responsible for maintaining a constant heart rate. Compression of the vagus nerve can result in cardiac arrest due to mechanical stimulation of the carotid sinus-vagal reflex. In addition, the functioning of the carotid sinuses may be affected by compression of the blood vessels. Stimulation of the sinuses can result in a decrease in heart rate, myocardial contractility, cardiac output, and systemic arterial pressure in the absence of airway blockage.

Strangulation proceeding along one or more of these pathways can progress rapidly to anoxia, associated cardiac arrest, and death. As seen in the CPSC data (Wanna-Nakamura, 2014), and in the published literature, neurological damage may range from amnesia to a long-term vegetative state. Continued deterioration of the nervous system can lead to death (Howell and Gully, 1996; Medalia et al., 1991).

Based on CPSC staff’s review of the incidents in section I.E of this preamble, and Tab A of Staff’s NPR Briefing Package, 16 of the 194 victims required hospitalization; six survived a hypoxic-ischemic episode or were pulseless and in full cardiac arrest when found,

suffered severe neurological sequelae, ranging from loss of memory to a long-term or permanent vegetative state, requiring tracheotomy and gastrointestinal tube feeding. One victim, who remained hospitalized for 72 days, was released from the hospital with 75 percent permanent brain damage and is now confined to a bed.

Because a preexisting loop acts as a noose when a child’s neck is inserted, and death can occur within minutes of a child losing footing, CPSC staff concluded that head insertion into a preexisting loop poses a higher risk of injury than when a child wraps a cord around his or her neck. However, both scenarios have been demonstrated to be hazardous and have led to fatal outcomes, according to CPSC data.

E. Risk of Injury

The Commission’s 2015 ANPR on Window Coverings presented incident data covering the period 1996 through 2012. 80 FR 2327, 2332 (Jan. 16, 2015). Since then, WCMA published the revised voluntary standard for window coverings, ANSI/WCMA–2018. For products that comply, ANSI/WCMA–2018 has removed hazardous operating cords and inner cords from stock window coverings and removed hazardous inner cords for custom window coverings. The incident data demonstrate that regardless of whether a product is categorized as stock or custom, children are exposed to the same risk of injury from accessible window covering cords.

CPSC staff reviewed the data related to window coverings from 2009 through 2020.<sup>12</sup> Some of the data sources relied upon in this analysis do not have data for 2020 available yet; for those sources,

staff included data for the latest available year, 2019. The following analysis distinguishes between stock and custom window coverings, whenever feasible. National estimates of deaths and injuries involving window covering strangulations among children under 5 years of age are associated with *all* types of window coverings, because the available information does not allow the CPSC to distinguish product subtypes.

1. Incident Data From CPSC Databases

Based on newspaper clippings, consumer complaints, death certificates purchased from states, medical examiners’ reports, hospital emergency department-treated injury reports, and in-depth investigation reports, CPSC found a total of 194 reported fatal and near-miss strangulations on window covering cords that occurred among children 8 years old and younger from January 2009 through December 2020. These 194 incidents do not constitute a statistical sample of known probability and do not necessarily include all window covering cord-related strangulation incidents that occurred during that period. However, these 194 incidents do provide at least a minimum number for such incidents during that time frame.

Table 1a provides the breakdown of the incidents by year. Because reporting is ongoing, the number of incidents presented here may change in the future. Given that these reports are anecdotal, and reporting is incomplete, CPSC strongly discourages drawing any inferences based on the year-to-year increase or decrease shown in the reported data.

TABLE 1a—REPORTED FATAL AND NEAR-MISS STRANGULATION INCIDENTS INVOLVING WINDOW COVERING CORDS AMONG CHILDREN EIGHT YEARS AND YOUNGER 2009–2020

Incident year	Number of reported incidents		
	Total	Fatal strangulations	Near-miss strangulations
2009 .....	48	14	34
2010 .....	31	11	20
2011 .....	10	6	4
2012 .....	17	8	9
2013 .....	9	2	7
2014 .....	17	12	5
2015 .....	9	7	2
2016 .....	17	13	4
2017 .....	9	5	4
2018 .....	8	4	4
2019* .....	11	4	7

<sup>12</sup> CPSC’s incident search focused on fatal and near-miss strangulations suffered by young children due to window covering cords. Whenever feasible, staff selected the time frame to be 2009 through 2020. CPSC staff searched three databases for identification of window covering cord incidents:

The Consumer Product Safety Risk Management System (CPSRMS), the National Electronic Injury Surveillance System (NEISS), and the Multiple Cause of Deaths data file. The first two sources are CPSC-maintained databases. The Multiple Cause of Deaths data file is available from the National

Center for Health Statistics (NCHS). The appendix at the end of this memorandum details information about the CPSC data sources and the selection criteria used for this data search.

TABLE 1a—REPORTED FATAL AND NEAR-MISS STRANGULATION INCIDENTS INVOLVING WINDOW COVERING CORDS AMONG CHILDREN EIGHT YEARS AND YOUNGER 2009–2020—Continued

Incident year	Number of reported incidents		
	Total	Fatal strangulations	Near-miss strangulations
2020* .....	8	3	5
Total .....	194	89	105

Source: CPSC epidemiological databases CPSRMS and NEISS.

Note: \* indicates data collection is ongoing.

Table 1b expands on Table 1a to display the distribution of the annual incidents by severity of incidents and type of window coverings involved.

CPSC staff identified 50 of 194 incident window coverings (26 percent) to be stock products, and 35 of the 194 (18 percent) were identified as custom

products; CPSC staff could not identify the window covering type in the remaining 109 of the 194 (56 percent) incidents.

TABLE 1b—REPORTED FATAL AND NEAR-MISS STRANGULATION INCIDENTS INVOLVING STOCK/CUSTOM/UNKNOWN TYPES OF WINDOW COVERING CORDS AMONG CHILDREN EIGHT YEARS AND YOUNGER 2009–2020

Incident year	Reported incidents by window covering type			
	Stock (fatal/nonfatal)	Custom (fatal/nonfatal)	Unknown (fatal/nonfatal)	All
2009 .....	20 (4/16)	7 (2/5)	21 (8/13)	48
2010 .....	10 (3/7)	7 (2/5)	14 (6/8)	31
2011 .....	2 (1/1)	4 (3/1)	4 (2/2)	10
2012 .....	1 (1/0)	5 (1/4)	11 (6/5)	17
2013 .....	2 (1/1)	3 (1/2)	4 (0/4)	9
2014 .....	3 (2/1)	2 (1/1)	12 (9/3)	17
2015 .....	4 (4/0)	1 (1/0)	4 (2/2)	9
2016 .....	5 (3/2)	4 (3/1)	8 (7/1)	17
2017 .....	2 (1/1)	1 (0/1)	6 (4/2)	9
2018 .....	.....	1 (0/1)	7 (4/3)	8
2019* .....	1(0/1)	.....	10 (4/6)	11
2020* .....	.....	.....	8 (3/5)	8
Total .....	50 (20/30)	35 (14/21)	109 (55/54)	194

Source: CPSC epidemiological databases CPSRMS and NEISS.

Note: \* indicates data collection is ongoing.

Eighty-nine of the 194 incidents (46 percent) reported a fatality. Among the nonfatal incidents, 15 involved hospitalizations (8 percent). The long-term outcomes of these 15 injuries varied from a scar around the neck, to quadriplegia, to permanent brain damage. One additional child was treated and transferred to another hospital; the final outcome of this patient is unknown. In addition, 75 incidents (39 percent) involved less-severe injuries, some requiring medical treatment, but not hospitalization. In the remaining 14 incidents (7 percent), a child became entangled in a window covering cord, but was able to disentangle from the cord and escape injury. Overall, among the incidents with gender information available, 66 percent of the children involved were males, while 34 percent were females. One incident did not report the gender of the child.

#### (a) Distribution of Reported Incidents by Window Covering and Associated Cord Types

Based on CPSC staff's review of the incident data, listed below are the most common types of window coverings among the 194 reported incidents, along with the types of cords associated with each:

- *Horizontal Blinds (includes Venetian and mini blinds)*: Associated cords: Continuous loop cord/beaded chain (free-standing, *i.e.*, not mounted on a tension device), inner cord, pull cord (with loops or long cords), and tilt cord;
- *Vertical Blinds*: Associated cords: Continuous loop cord/beaded chain (free-standing);
- *Roman Shades*: Associated cords: Continuous loop cord/beaded chain (free-standing), inner cord, and pull cord (with loops or long cords);

- *Roller Shades*: Associated cords: Continuous loop cord/beaded chain (free-standing);

- *Roll-Up Shades*: Associated cords: Pull cord (with loops or long cords) and lifting loop;

- *Other Shades (includes pleated, cellular-honeycomb)*: Associated cords: Continuous loop cord/beaded chain (free-standing) and pull cord (with loops or long cords);

- *Curtains/Draperies*: Associated cords: Continuous loop cord/beaded chain (free-standing).

#### (b) Incident Breakdown—Stock and Custom Window Coverings

CPSC staff definitively identified 50 of the 194 incidents that involved stock window coverings in the period from 2009 through 2020. Of the 50 incidents, 64 percent involved horizontal blinds; 28 percent involved Roman shades; 4 percent involved roller shades; and 2 percent involved roll-up shades and vertical blinds.

CPSC staff definitively identified 35 of the 194 incidents that involved custom window coverings. Of the 35 incidents, 51 percent involved horizontal blinds; 17 percent involved Roman shades; and 9 percent involved roller shades. Other shades, such as

cellular and pleated shades, together accounted for 11 percent of the incidents. Six percent involved vertical blinds. For the remaining 6 percent of the incidents involving custom products, staff did not have sufficient information to determine the type of

window covering. Table 2 provides cross-tabulation of the incidents by window covering type and the associated cord type involved in these 35 incidents.

TABLE 2—DISTRIBUTION OF REPORTED INCIDENTS BY TYPES OF WINDOW COVERINGS AND ASSOCIATED CORDS AMONG CUSTOM PRODUCTS: 2009–2020

	Pull cord	Continuous loop cord/beaded chain	Inner cord	Lifting loop	Tilt cord	Unknown	Total (%)
Horizontal .....	16	2	.....	.....	.....	.....	18 (51%)
Roman .....	1	2	3	.....	.....	.....	6 (17%)
Roller .....	.....	3	.....	.....	.....	.....	3 (9%)
Other Shades .....	1	3	.....	.....	.....	.....	4 (11%)
Vertical .....	.....	2	.....	.....	.....	.....	2 (6%)
Unknown .....	.....	.....	.....	.....	.....	2	2 (6%)
Total .....	18	12	3	.....	.....	2	35 (100%)

Source: CPSC databases CP SRMS and NEISS. Percentages may not add to 100 due to rounding.

For most of the reported incidents (109 out of 194), CPSC staff did not have enough information available to determine if the window covering was a stock or custom product. Among these reported incidents, 32 percent involved horizontal blinds; 7 percent involved vertical blinds; 5 percent involved roll-up shades; roller shades and Roman shades were each involved in 4 percent of the incidents; and draperies and other shades (pleated/cellular) were each involved in 3 percent of the incidents.

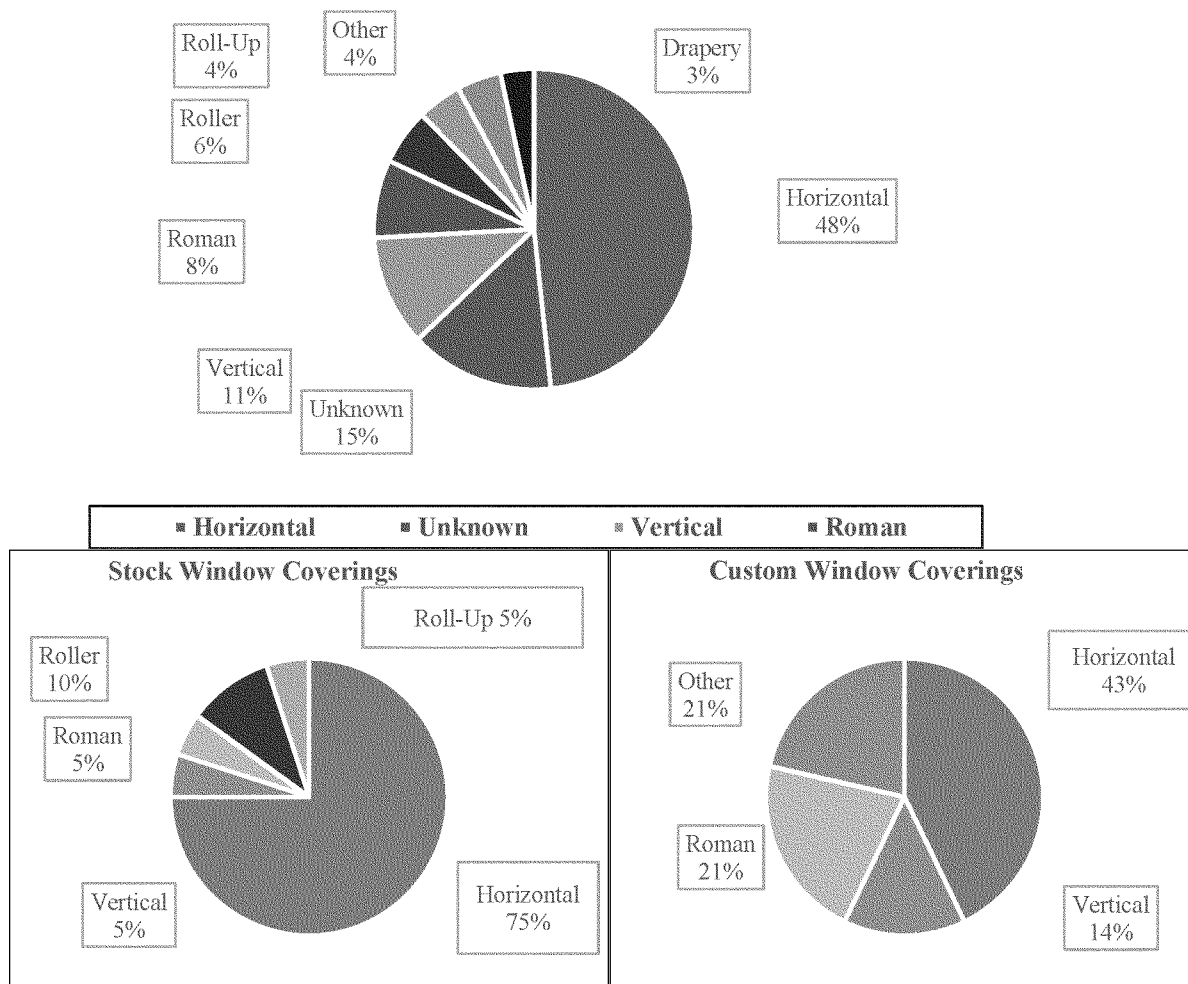
For a large proportion, 43 percent, CPSC staff could not determine the type of window covering based on the available data.

#### (c) Distribution of Fatal Incidents by Window Covering and Associated Cord Types

Of the 194 reported incidents, 89 involved a fatality. Of the 89 deaths, 43 involved horizontal window coverings; 10 involved vertical window coverings; and 7 involved Roman shades. For 13

fatalities, staff does not know the window covering type. When separated by the known stock versus custom products, horizontal blinds were involved in the most fatalities. Figure 11 shows the breakouts by window covering types for all 89 reported fatalities, as well as among the known stock and custom products separately. Figure 11 also illustrates the distribution of these fatal incidents by types of window coverings.

Figure 11: Distribution of Fatalities by All Window Coverings



Source: CPSC epidemiological databases CPRMS and NEISS

**(d) Most Common Cord Types and Associated Hazards Resulting in Fatalities**

Whether considering stock, custom, or unknown-if-stock-or-custom products, CPSC found that the pull/operating cord system is the single most hazardous scenario among the reported fatal incidents. Thirty-nine of the 89 (44 percent) fatalities involved a child getting entangled in such pull cords; continuous loops were next, with 23 of the 89 (26 percent) fatalities. Inner cords ranked next, accounting for 7 of the 89 (8 percent) fatalities.

(i) *Pull Cords*: In 37 of the 39 known pull cord fatalities, the pull cords were components of horizontal blinds. Of these 39 deaths, 38 occurred before implementation of the 2018 voluntary standard affecting stock products. Although reporting is ongoing, so far, one fatality has been reported in 2019, but none in 2020. Among the 39 fatalities, CPSC identified 7 incidents involving custom products, and 12

involving stock products; staff could not differentiate the remaining 20 incidents' window coverings in terms of being stock or custom products. Hence, the effects, if any, of the 2018 voluntary standard on these products have yet to be reflected in the data.

A closer look at pull cord-related incidents revealed several ways in which children have strangled. Figure 12 presents the distribution of the pull cord-related fatalities by the common modes of entanglement.

- *Loops created by knotted or tangled cord*: CPSC's review revealed that before the incidents, the pull cords had been tied together, or had been coiled and tucked away (out of children's reach), but later became accessible. When pull cords were tied together, a loop was created above the knot where the cords were tied, and that is where the child later became entangled. When the cords were coiled, the cords also became tangled and created a loop, which later acted as a noose. Among all 39 pull-cord-related fatal incidents, 18 out of 39

(46 percent) occurred on loops created by knotted or tangled cords.

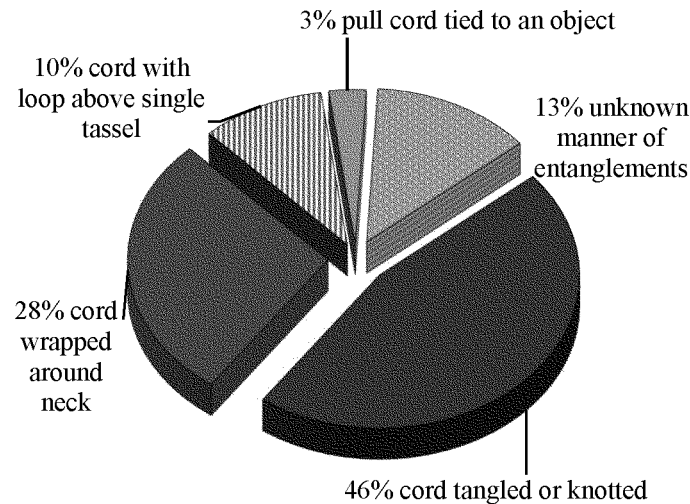
- *One or more long cords that the child wrapped around their neck*: In these scenarios, the child had wrapped the long pull cord(s) multiple times around the neck. When the child fell, or tried to pull away from the window covering, the cord pulled back, causing the child to strangle or nearly strangle. Among all pull cord-related fatal incidents, this category included 11 of the 39 (28 percent) pull cord fatalities.

- *Loop above a single tassel or a stop ball of the cord*: Some pull cords consist of multiple cords that hang from the window covering's head rail and are joined at a point, by a plastic or wooden tassel, or by a stop ball. In such configurations, a loop exists above the tassel. In the cases reviewed, CPSC determined that these loops, when accessible to a child, acted as a noose where the child was caught. Four of the 39 (10 percent) pull cord-related fatal incidents involved this scenario.

• *Pull cord tied to an object*: CPSC determined that in one of the 39 (3 percent) pull cord-related fatal incidents, pull cords were tied to a cord

cleat, creating a u-shape on the cords where the child was strangled.  
 • *Unknown manner*: Five of the 39 (13 percent) pull cord-related fatal

incidents did not report sufficient information to allow CPSC staff to determine the manner in which the child was entangled.



**Figure 12: Distribution of Pull Cord-Related Fatal Incidents by Mode of Entanglement 2009-2020**  
 Source: CPSC databases CPSRMS and NEISS

(ii) *Continuous Loop Cords*: CPSC identified continuous loop cords or beaded chains that were not mounted with a tension device or that broke loose from a tension device at the time of the incident, to be the next major type of cord in which children become entangled. Vertical blinds and curtains/drapes are the predominant types of window covering associated with strangulations on continuous loops. Some of the incident reports mentioned the child's prior interest in wearing the beaded chain as a necklace. Among the 89 fatalities, 23 reported this type of operating mechanism.

(iii) *Inner Cords*: Inner cords on horizontal blinds and/or Roman shades are the third major type of cord in which children become entangled. In these scenarios, the child pulled out the inner cord from between the slats of the horizontal blinds or from behind the Roman shades, which were in the lowered position. Subsequently, the child got caught in the loop created by the pulled-out portion of the inner cord. In some Roman shade incidents, children inserted their heads into the opening between the inner cord and the shade material. Seven of the 89 fatalities involved inner cords.

(iv) *Other Cords*: Among the less-prevalent cord types, the lifting loop of a roll-up blind was involved in four fatalities. Children inserted their heads or arms into the lifting loop that came off the roll-up material, resulting in the strangulation incidents. Tilt cords that are used to swivel the slats on a

horizontal blind were involved in an additional two fatal incidents.

## 2. Incident Data From National Estimates

(a) Estimates of Window Covering Cord-Related Strangulation Deaths Using National Center for Health Statistics Data

The National Center for Health Statistics (NCHS) compiles all death certificates filed in the United States into multiple-cause mortality data files. The mortality data files contain demographic information on the deceased, as well as codes to classify the underlying cause of death and up to 20 contributing conditions. The NCHS compiles the data in accordance with the World Health Organization's (WHO) instructions, which request member nations to classify causes of death by the current Manual of the International Statistical Classification of Diseases, Injuries, and Causes of Death. Death classifications use the tenth revision of the International Classification of Diseases (ICD), implemented in 1999. The latest year for which mortality data are available is 2019; as such, CPSC derived the strangulation fatality estimates for 2009 through 2019, which is a slightly different time frame than that used for the incident data from the CPSC databases.

Based on CPSC staff's review of the death certificates maintained in the CPSRMS database, staff identified three ICD10 codes that are likely to be used

for classification of strangulation fatalities:

- W75 (*accidental suffocation and strangulation in bed*),
- W76 (*Other accidental hanging and strangulation*), and
- W83 (*Other specified threats to breathing*).

Among these three ICD10 codes, W76 appeared to be the most commonly used to classify strangulation deaths.

Using the ICD10 code value of W76, CPSC staff identified a total of 256 strangulation fatalities among children under age 5 in the multiple-cause mortality data from the NCHS from 2009 through 2019, which yields an annual average of 24 deaths (rounded up to the nearest integer). Two hundred and fifty-six strangulation fatalities are most likely an underestimate of all strangulation deaths, because CPSC staff did not use the other two ICD10 codes (W75 and W83) in the search of this data source. An unknown proportion of strangulation deaths are likely coded under ICD10=W75, as well as ICD10=W83, which cannot be distinguished from the non-strangulation deaths—because of the unavailability of any narrative description—in this data and added to the total. Hence, staff's annual average estimate of 24 strangulation deaths is a minimum.

A CPSC report by Marcy *et al.*,<sup>13</sup> which reviewed CPSC databases in

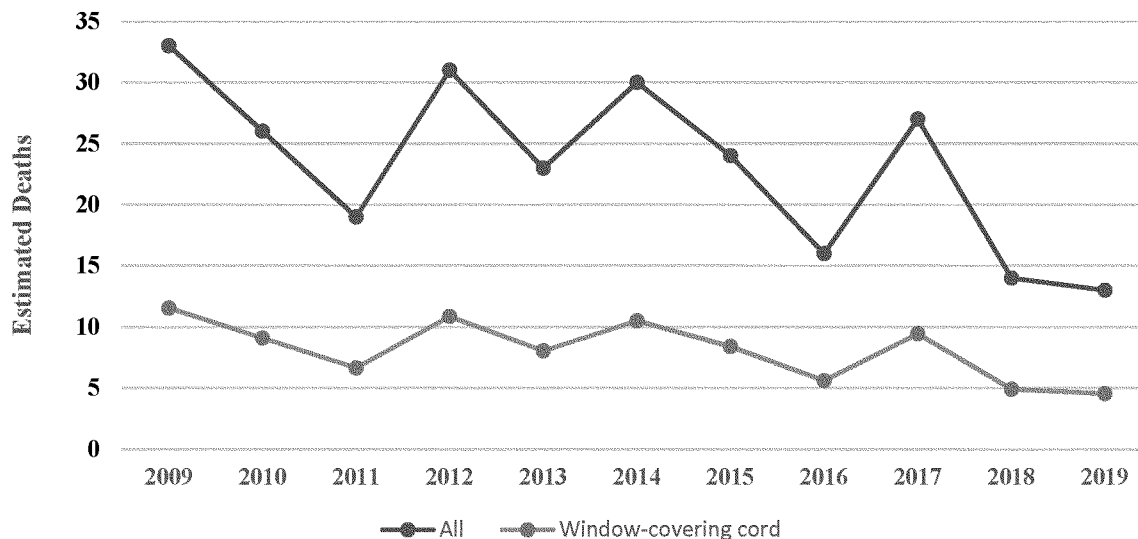
<sup>13</sup> N. Marcy, G. Rutherford, "Strangulations Involving Children Under 5 Years Old." U.S.

2002, found that 35 percent of all strangulation fatalities among children less than 5 years old were associated with window covering cords. Assuming that this 35 percent proportion applies to the entire period 2009 through 2019,

CPSC staff estimates that, on average, a minimum of 9 strangulation fatalities (35 percent of the unrounded average annual death estimate of 23.27) occur annually on window covering cords among children under 5 years of age.

Again, the estimate is rounded up to an integer. Figure 13 presents the yearly details. The Commission seeks comments on the estimated strangulations by window coverings.

**Figure 13: Estimated Annual Minimum for Fatal Strangulations Among Children Under Five Years of Age**



**Source:** Multiple Cause of Death data, NCHS, 2009 – 2019.

**Note:** The estimates for the window covering cord fatalities are based on the assumptions that 35 percent of all strangulation fatalities are due to window covering cords and that this percentage remained unchanged over 2009-2019.

#### (b) Estimates of Window Covering Cord-Related Strangulation Injuries Treated in Hospital Emergency Departments

Based on the emergency department-treated injury data (NEISS), the aggregated estimated injuries to children 8 years of age and younger, who were entangled on window covering cords in the period 2009 through 2020, fell below the NEISS reportable threshold.<sup>14</sup> The injury estimates for individual years are even smaller, which makes any trend analysis unfeasible. However, we combined the 34 injury reports from NEISS with the incident data for the analysis of anecdotal data in section I.E.1 of this preamble. CPSC staff set the upper limit for the age selection criterion for NEISS data at 8 years old, whenever feasible, because of multiple incident reports received by CPSC staff that involved children up to that age.

#### F. ANSI/WCMA-2018 History and Description

CPSC staff began working with the Window Covering Manufacturers Association (WCMA) in 1995 on an American National Standards Institute (ANSI) voluntary standard to address the strangulation hazard to young children from accessible cords on window coverings. WCMA published the first version of the ANSI standard in 1996. The 1996 standard sought to prevent strangulation incidents created by looped cords by requiring either: (1) Separate operating cords, or (2) a cord release device on multiple cords ending in one tassel. The standard also required a tension device that would hold the cord or bead loop taut, when installed according to manufacturer's instructions.

In 2001 and in 2002, CPSC staff sent letters to the WCMA asking for revisions to the 1996 standard, including the addition of inner cord stops and the elimination of free-hanging cords or

bead chains longer than the neck circumference of a fifth percentile 7-month to 9-month-old child.<sup>15</sup> In August 2002, the published ANSI standard required inner cord stops. In 2007, the published ANSI standard required that tension devices partially limit the consumer's ability to control the blind if the tension device is not properly installed. In 2009 and 2010, WCMA published provisional voluntary standards to address hazards associated with Roman shades.

In November 2010, CPSC held a public meeting regarding window coverings, and WCMA announced that it would establish a steering committee to oversee the activities of six task groups, including one intended for operating pull cords and another for continuous loops. On December 20, 2011, WCMA balloted the proposed revisions to the voluntary standard, and on February 6, 2012, staff sent WCMA a letter providing comments on the

<sup>14</sup> Consumer Product Safety Commission, December 2002.

<sup>14</sup> According to the NEISS publication criteria, an estimate must be 1,200 or greater, the sample size must be 20 or greater, and the coefficient of variation must be 33 percent or smaller.

<sup>15</sup> See <https://www.cpsc.gov/Regulations-Laws-Standards/Voluntary-Standards/Window-Blind-Cords>.

proposed revision.<sup>16</sup> In these comments, CPSC staff reiterated that the hazardous loop determination should be made for all cords and that the length of an accessible operating cord should not be longer than the neck circumference of the youngest child at risk. In addition, staff raised concerns about the inability of tension devices to eliminate effectively or reduce significantly the risk of strangulation under certain foreseeable-use conditions.

In November 2012, the WCMA announced the approval of the 2012 version of the ANSI/WCMA standard, which included: (1) Requirements for durability and performance testing of the tension/hold down devices, including new requirements for anchoring; (2) specific installation instructions and warnings; (3) new requirements for products that rely on “wide lift bands” to raise and lower window coverings; (4) requirements for a warning label and pictograms on the outside of stock packaging and merchandising materials for corded products; and (5) expanded testing requirements for cord accessibility, hazardous loop testing, roll-up style shade performance, and durability testing of all safety devices. A revised ANSI/WCMA A100.1 American National Standard for Safety of Corded Window Covering Products was approved on July 21, 2014, which included an editorial change.

On July 22, 2014, CPSC staff sent a letter to the WCMA, requesting that the WCMA reopen the ANSI standard to address the hazard related to pull cords and continuous loops, which are the predominant hazard types in the incidents reported to CPSC.<sup>17</sup> Staff suggested proposed language for a revision to the voluntary standard and asked that WCMA consider including the language in the standard. On August 29, 2014, WCMA responded that the association would begin the process of opening the ANSI/WCMA window covering standard. On August 2, 2016, CPSC staff hosted a WCMA technical meeting. At the meeting, WCMA committed to revising the voluntary standard to require no operating cords, short cords that cannot form a hazardous loop, or inaccessible cords, recognizing that there will be exceptions to these requirements. WCMA said that they would be exploring segmentation approaches, such as product categories, operating systems, applications and uses, distribution channels (e.g., stock versus custom), location in home; and size, weight, and geometry of the product and ability of the products to be readily adaptable to new technologies. WCMA also committed to submitting a revised draft standard for ANSI to ballot by the end of 2016.

Throughout FY 2017, staff participated in WCMA steering committee meetings, and also

participated in the stock/custom definitions and warning labeling task groups. ANSI published a revision to the window coverings standard, ANSI/WCMA A100.1–2018, on January 8, 2018. WCMA updated the 2018 version of the standard in May 2018, to include missing balloted revisions. The standard went into effect on December 15, 2018.

This NPR is based on the most recent version of the voluntary standard, ANSI/WCMA–2018, which segments the window covering market between “stock” and “custom” window coverings, as defined in section 3 of the standard, definitions 5.02 and 5.01. Per section 4.3.1 of the standard, stock window coverings are required to have:

- (1) No operating cords (4.3.1.1),
- (2) inaccessible operating cords (4.3.1.3), or
- (3) short operating cords (equal to or less than 8 inches) (4.3.1.2).

Although manufacturers of custom window coverings can opt to meet the operating cord requirements for stock window coverings (sections 4.3.2.1 through 4.3.2.3 for custom window coverings are identical to 4.3.1.1 through 4.3.1.3), consumers can still purchase corded window coverings if they custom order the product (sections 4.3.2.4 through 4.3.2.6). Table 3 demonstrates the operating cord systems allowed on custom window coverings that are not allowed on stock window coverings in ANSI/WCMA–2018.

**Table 3 – ANSI/WCMA-2018 Operating and Inner Cord Requirements for Stock and Custom Window Coverings**

<i>Performance Requirements</i>	<i>Stock Products</i>	<i>Custom Products</i>
<i>No operating cords OR</i>	<b>Required</b>	<b>Optional</b>
<i>Short operating cord with a length equal to or less than 8 inches in any state (free or under tension) OR</i>		<b>Optional</b>
<i>Inaccessible operating cords</i>		<b>Optional</b>
<i>Inner cords that meet Appendix C and D</i>	<b>Required</b>	<b>Required</b>
<i>Single Retractable Operating Cord Lift System</i>	<b>Prohibited</b>	<b>Allowed</b>
<i>Continuous-Loop Operating System</i>	<b>Prohibited</b>	<b>Allowed</b>
<i>Accessible Operating Cords longer than 8 inches</i>	<b>Prohibited</b>	<b>Allowed</b>

Section 4.3.2 of ANSI/WCMA–2018 contains additional revised default requirements for custom products, including:

(1) Operating cords must have a default length of 40 percent of the blind height (previously unlimited) (4.4);

(2) a wand is the default option for tilting slats (instead of a cord) (4.4.1.1); and

<sup>16</sup> Letter can be found at: [https://www.cpsc.gov/s3fs-public/pdfs/blk\\_media\\_wcma02\\_07\\_12.pdf](https://www.cpsc.gov/s3fs-public/pdfs/blk_media_wcma02_07_12.pdf).

<sup>17</sup> Letter can be found at:

[https://www.cpsc.gov/s3fs-public/pdfs/blk\\_media\\_WCMALtr22July2014.pdf](https://www.cpsc.gov/s3fs-public/pdfs/blk_media_WCMALtr22July2014.pdf).



(3) warning labels must depict more graphically the strangulation hazard associated with cords (5.1).

In 2018, staff participated in various task group meetings to develop requirements for rigid cord shrouds. Section 3, definition 2.09 of ANSI/WCMA–2018 defines a “cord shroud” as “a device or material added to limit the accessibility of a cord or formation of a Hazardous Loop.” A “rigid cord shroud” is not defined in the voluntary standard, but it is a hard material that encases an operating cord to prevent a child from accessing the cord inside the device. The requirements developed by the ANSI task group would clarify “rigid” by confirming that a cord shroud is rigid enough to ensure that the shroud cannot be wrapped around a child’s neck or won’t form a u-shape because of attaching the free end of the shroud to the wall (similar hazards to a single cord). CPSC staff is not aware of incidents related to current products with rigid cord shrouds and advises that cord shrouds that meet the proposed modifications to the ANSI/WCMA standard will address the strangulation hazard posed by accessible cords.

The task group, including CPSC staff, worked from March through December 2018, to develop draft language to test rigid cord shrouds, but WCMA has not balloted the requirements. The tests developed for rigid cord shrouds ensure the stiffness and integrity of the shroud. CPSC staff advises that the allowed deflection (1 inch for every 19-inch length of rigid cord shroud) for a rigid cord shroud under the test is reasonable. The axial torque test method simulates a child twisting the rigid cord shroud to determine if a cord becomes accessible. The torque is based on the mean wrist twisting strength of 2- to 5-year-old males, using a vertically positioned 20 mm-diameter knob, which is 4.4 inch-pound (DTI, 2002). If the cord is accessible, then the device is not considered a rigid cord shroud. Accordingly, the Commission proposes a “rigid cord shroud” definition and test method in this NPR. Tab H of Staff’s NPR Briefing Package, and section IV.C of this preamble, contain the proposed language related to cord shrouds, which is based on the work of the ANSI task group.

On March 12, 2019, staff participated in a WCMA steering committee meeting. The purpose of the meeting was to gather feedback on the new requirements that went into effect in December 2018, and to discuss potential proposals for the standard, which WCMA committed to open in mid-June 2019. During the meeting, the attendees agreed on the need for more education

for online sellers regarding distinguishing stock and custom products, such as a guidance document for online sellers. Additionally, CPSC staff provided ideas for the next revision of the standard for the committee to consider, including: (1) Segmenting custom products by size and/or type to meet stock product requirements; (2) considering cord retractors for custom products as an option (which is not allowed for stock products); (3) investigating complete inoperability of the product if a tension device is not installed (current requirement is partial inoperability); and (4) considering cordless systems as default operating system for custom orders.

On May 16, 2019, staff sent a letter to WCMA, requesting segmentation of custom window coverings by size and/or type, and applying the requirements for stock products to these segments of custom products; presenting the cordless/short cords/inaccessible cords as the default operating system for custom products as an interim measure, as well as interrupting the ordering process with an alert on hazardous cords if a consumer wants to switch to a corded system; balloting the rigid cord shroud requirement that was finalized by the task group; reaching out to online sellers and developing a guidance document for online sellers; and clarifying whether the standard applies to curtain and drapery products.<sup>18</sup>

WCMA responded to CPSC staff on August 12, 2019 and stated that they have put on hold the planned revision of ANSI/WCMA standard because the Government of Canada published a new regulation on corded window coverings. WCMA explained that stock products that do not have operating cords but have inner cords that cannot form a hazardous loop, would not comply with the Canadian regulation because of the new regulated pull force applied to the inner cord. WCMA also stated that the force applied to the inner cord under the Canadian regulation is not applied to test for a hazardous loop; rather, it is applied to determine the force required to raise the product, which is completely contrary to the hazard scenario and is causing considerable confusion within the U.S. and Canadian manufacturing sectors. WCMA reassured CPSC staff that they were still moving forward with balloting the rigid shroud language for the standard.

In November 2019, WCMA sent a letter to CPSC staff about the amendment in the fiscal year 2020

Operating Plan, asking staff to assess what further revisions are needed to the American National Standard for Safety of Corded Window Covering Products (ANSI/WCMA-2018), specifically for custom products. WCMA requested that CPSC staff use input from the technical experts at the WCMA’s member companies during the upcoming study and in drafting the report to provide the Commission with a comprehensive and balanced review. The letter stated that WCMA will also proceed with balloting the rigid shroud language for the standard that was developed and agreed upon by the technical working group.

On February 3, 2020, staff sent a letter to WCMA, outlining staff’s recommendations for future improvements to the standard, and included a request to reopen the standard and discuss staff’s recommendations.<sup>19</sup> Staff reiterated their belief that substantial improvements have been made to the latest version of the standard, particularly on stock window coverings; however, staff asserted, expanding the requirements to custom corded window coverings would improve window covering safety. In September 2021, staff sent another letter to WCMA, urging WCMA to apply the stock product requirements in ANSI/WCMA–2018 to custom window coverings, as well as to ballot the rigid cord shroud language developed and agreed upon by the technical working group.

Section II of this preamble assesses the adequacy of requirements for operating cords on stock and custom window coverings in ANSI/WCMA–2018 to address the hazards associated with corded window coverings. Based on staff’s assessment, the Commission finds that ANSI/WCMA–2018 adequately addresses the risk of strangulation on operating cords for stock window coverings, by removing operating cords, ensuring that they are inaccessible to children, or by making them too short for a child to wrap around his or her neck. However, as shown in Table 3, the Commission finds ANSI/WCMA–2018 does not adequately address the risk of injury associated with operating cords on custom window coverings, because custom products can still be sold to consumers with hazardous operating cords.

<sup>18</sup> See <https://www.cpsc.gov/Regulations-Laws-Standards/Voluntary-Standards/Window-Blind-Cords>.

<sup>19</sup> Letter can be found at the following link: <https://www.cpsc.gov/s3fs-public/CPSC-Staff-Letter-to-WCMA-Feb-2020.pdf?TZtarOeedGSVnaPzS5dHOEkpKz7f3N24>.

### *G. Commission Efforts To Address Hazardous Window Covering Cords*

#### 1. Petition and Rulemaking

Since the mid-1990s, CPSC staff has been engaged with the voluntary standards body urging changes to the ANSI/WCMA standard to reduce the risk of injury associated with window covering cords. On October 8, 2014, the Commission granted a petition to initiate a rulemaking to develop a mandatory safety standard for window coverings.<sup>20</sup> The petition sought to prohibit window covering cords when a feasible cordless alternative exists. When a feasible cordless alternative does not exist, the petition requested that all window covering cords be made inaccessible by using passive guarding devices. The Commission granted the petition and directed staff to prepare an ANPR to seek information and comment on regulatory options for a mandatory rule to address the risk of strangulation to young children on window covering cords.

On January 9, 2015, the Commission voted to approve publication in the **Federal Register** of the ANPR for corded window coverings. The Commission published the ANPR for corded window covering products on January 16, 2015 (80 FR 2327). The ANPR initiated a rulemaking proceeding under the CPSA. CPSC invited comments concerning the risk of injury associated with corded window coverings, the regulatory alternatives discussed in the notice, the costs to achieve each regulatory alternative, the effect of each alternative on the safety, cost, utility, and availability of window coverings, and other possible ways to address the risk of strangulation posed to young children by window covering cords. The Commission also invited interested persons to submit an existing standard or a statement of intent to modify or develop a voluntary standard to address the risk of injury. The ANPR was based on the 2014 version of the ANSI/WCMA standard.

As described in section II.A of this preamble, the revised version of the voluntary standard, ANSI/WCMA–2018, adequately addresses the risk of injury

from operating and inner cords on stock window coverings, and the risk of inner cord strangulation on custom window coverings. Accordingly, the Commission is issuing two proposed rules: (1) This NPR under sections 7 and 9 of the CPSA, to require that custom window coverings sold in the United States not contain hazardous operating cords, by complying with the same operating cord requirements as stock products in section 4.3.1 of ANSI/WCMA–2018; and (2) in a separate, concurrent rulemaking under section 15(j) of the CPSA, the Commission is proposing to deem an SPH, as defined in section 15(a)(2) of the CPSA: (a) The presence of hazardous operating cords on stock window coverings, (b) the presence of hazardous inner cords on stock and custom window coverings, or (c) the absence of a required manufacturer label.

#### 2. Window Covering Recalls

During the period from January 1, 2009 to December 31, 2020, CPSC conducted 42 consumer-level recalls, including two recall reannouncements. Tab C of Staff's NPR Briefing Package provides the details of these 42 recalls, where strangulation was the primary hazard. Manufacturers recalled more than 28 million units,<sup>21</sup> including: Roman shades and blinds, roll-up blinds, roller shades, cellular shades, horizontal blinds, and vertical blinds. The recalled products also included stock products, which can be purchased by consumers off the shelf, and custom products, which are made-to-order window coverings based on a consumer's specifications, such as material, size, and color.

### **II. Assessment of Operating Cord Requirements for Stock and Custom Window Coverings**

Based on CPSC staff's engineering and human factors assessments of the voluntary standard, set forth in Tabs G and I of Staff's NPR Briefing Package, the NPR requires that operating cords on custom window coverings meet the same requirements for operating cords on stock window coverings, as provided in section 4.3.1 of ANSI/WCMA–2018. In this section of the preamble, we provide an overview of the operating cord requirements for stock and custom window coverings in ANSI/WCMA–2018 and in other international standards; assess the adequacy of these

requirements to address the risk of strangulation to young children; and explain why the Commission proposes to require that custom window coverings meet the same operating cord requirements as stock window coverings.

### *A. Engineering Assessment of Operating Cord Requirements in ANSI/WCMA–2018*

#### 1. Stock Window Coverings

Requirements for operating cords on stock window coverings in ANSI/WCMA–2018 are adequate to address the risk of injury associated with window coverings. Staff analyzed the incident data, which indicated that the largest proportion of deaths, irrespective of window covering type, involved operating cords (most frequently tangled or knotted cords, followed by cord(s) wrapped around the child's neck). The voluntary standard recognizes that long and accessible cords can pose a strangulation hazard. ANSI/WCMA–2018 defines the "operating cord" as the portion of a cord that the user interacts with and manipulates to move the window covering in a certain direction (e.g., lifting or lowering, traversing, rotating). If a child wraps a long operating cord around their neck or inserts their neck into a cord loop created by the design of the window covering or by tangled cords, the child can strangle to death within minutes. ANSI/WCMA–2018 provides three ways that a stock window covering can comply with the standard to reduce or eliminate the risk of children strangulating on operating cords:

*a. No Operating Cords (section 4.3.1.1).* Having no operating cords effectively eliminates the strangulation hazard associated with operating cords because there is no cord to cause strangulation. Consumers use a mechanism, other than an operating cord, to accomplish the desired movement action on the product (i.e., lifting, lowering, traversing). For example, a spring mechanism on a horizontal blind allows the user to lift and lower the blind via bottom rail of the window covering.

*b. Short Cord with a Length Equal to or Less Than 8 Inches in Any State (section 4.3.1.2).* Based on the anthropometric dimensions of the youngest child involved in an incident, a static cord length of 8 inches or shorter is insufficient to strangle a child,

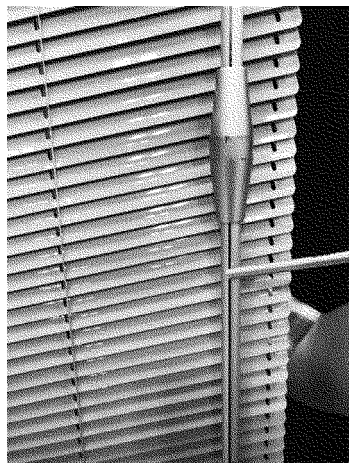
<sup>20</sup> The petition, CP 13–2, was submitted by Parents for Window Blind Safety, Consumer Federation of America, Consumers Union, Kids in Danger, Public Citizen, U.S. PIRG, Independent Safety Consulting, Safety Behavior Analysis, Inc., and Onder, Shelton, O'Leary & Peterson, LLC. Staff's October 1, 2014 Petition Briefing Package, and a copy of the petition at Tab A, is available on CPSC's website at: <https://www.cpsc.gov/Global/Newsroom/FOIA/CommissionBriefingPackages/2015/PetitionRequestingMandatoryStandardforCordedWindowCoverings.pdf> on (cpsc.gov).

<sup>21</sup> This estimate does not include the recalled units of Recall No. 10–073. This was an industry-wide recall conducted by members of the Window Covering Safety Council (WCSC). An exact number of recalled products was not stated in the recall announcements.

because the neck circumference of a fifth percentile 6- to 9-month-old child is 8 inches (BSI, 1990, as cited in Norris and Wilson, 1995). Because a child would need some extra length of cord to hold the cord out and wrap it around their neck, staff calculated that a cord must be longer than 8 inches to cause strangulation.

*c. Inaccessible Operating Cords Determined Per the Test Requirement in Appendix C of the ANSI/WCMA–2018 (section 4.3.1.3).* If a window covering has an operating cord that is longer than 8 inches, ANSI/WCMA–2018 requires that the cord must be inaccessible to children. Having inaccessible cords effectively eliminates the strangulation hazard associated with operating cords, because the child is unable to access a cord to cause strangulation. Accordingly, this requirement is tested using a probe that is intended to simulate the finger size of a young child; the diameter of the probe is 0.25 inches, based on fifth percentile 2- to 3.5-year-old's index finger diameter (Snyder et al., 1977) at 0.33 inches and the off-the-shelf availability of a 0.25-inch diameter dowel pin. If the probe cannot touch the operating cord, the cord is then deemed inaccessible, pursuant to ANSI/WCMA–2018.

Staff is unaware of a stock window covering for sale in the United States that has an inaccessible operating cord, as described in section 4.3.1.3 of ANSI/WCMA–2018. For products sold in other countries that meet the inaccessibility requirement, the test in the voluntary standard is met by using a rigid cord shroud that encapsulates the operating cord. Figure 14 displays an example of a rigid cord shroud. In Figure 14, the accessibility probe cannot touch the operating cord because it is surrounded by the cord shroud. Therefore, the window covering in Figure 14 meets section 4.3.1.3 of ANSI/WCMA–2018, because the operating cord is inaccessible.



**Figure 14. Rigid cord shroud**

CPSC concludes that ANSI/WCMA–2018 adequately addresses the strangulation hazard posed by accessible operating cords on stock window covering products, because the standard either eliminates accessible operating cords, or limits the length of the cord so that it is too short for a child to strangle.

## 2. Custom Window Coverings

Requirements for operating cords on custom window products in section 4.3.2 of ANSI/WCMA–2018 do not adequately address the risk of strangulation to children 8 years old and younger, because ANSI/WCMA–2018 allows hazardous operating cords if window coverings are custom ordered. Of the 35 custom window covering incidents reviewed by staff, 30 of the 35 (86%) incidents were related to operating cords (including pull cords and continuous loops). CPSC staff advises that had the requirements in section 4.3.1 of the ANSI/WCMA standard for operating cords on stock products been in effect for custom window coverings, the requirements would have prevented 100 percent of the incidents involving operating cords on custom window coverings. However, the requirements in section 4.3.2 of ANSI/WCMA–2018 do not address the custom window covering incidents associated with accessible operating cords.

The 2018 version of the voluntary standard added two new requirements for custom window coverings to mitigate the hazard: (1) Default maximum operating cord length of 40 percent of the blind height when the product is fully lowered, and (2) default tilt wand option for tilting slats instead of a cord. However, ANSI/WCMA–2018 still allows hazardous operating cords to be part of the window covering design for custom products, which can comply with ANSI/WCMA–2018 using one of the following methods, all of which pose strangulation risks:

(a) *Accessible Operating Cords longer than 8 inches (section 4.3.2.6).* By allowing operating cords on custom window coverings to exceed 8 inches in length, ANSI/WCMA–2018 creates a continuing unreasonable risk of injury to children 8 years old and younger. Section 4.3.2.6 of ANSI/WCMA–2018 allows hazardous operating cords, meaning operating cords that are long enough to be wrapped around a child's neck, or multiple cords that can become tangled and create a loop large enough for a child to insert their head. Even though ANSI/WCMA–2018 attempts to reduce the strangulation risk by shortening the default length of the cord to 40 percent of the window covering's length (section 4.4) and specifying the

tilt wand as the default option versus tilt cords (section 4.4.1.1), as explained in Tab I of Staff's NPR Briefing Package, and in section II.C of this preamble, the risk associated with operating cords remains.

(b) *Continuous Loop Operating System (section 4.3.2.5).* This operating system requires that the operating loop be kept taut with a tension device. However, as observed in the incident data, a child can still insert his/her head into the continuous loop if it is not taut enough; in addition, as explained in Tab I of Staff's NPR Briefing Package, and in section II.C of this preamble, tension devices may not be attached to the wall, which results in a free loop on the product. CPSC staff identified 23 fatal strangulations involving a continuous corded loop on a product without a functional tension device. CPSC is aware of cord or bead-chain restraining devices intended to be integrated into the window covering, and that do not need to be attached on the wall to keep the loop taut. According to the standard, these devices are required to meet durability, UV stability, and impact testing, and the devices must pass the hazardous loop testing procedure to confirm that they do not create a hazardous loop from an accessible continuous operating cord. CPSC requests comments on the adequacy of these devices to reduce or eliminate the strangulation hazard associated with custom window coverings.

(c) *Single Retractable Cord Lift System (section 4.3.2.4).* This method of complying with ANSI/WCMA–2018 allows an operating cord on a custom window covering to be pulled at any length to operate the window covering, and then retracts to a shorter length when the user releases the cord. Staff advises that retractable cord lift systems with an extended cord greater than 8 inches, and a low-retraction force to sustain that length, could allow a child to manipulate the cord and wrap the cord around his/her neck. Accordingly, the retractable cord requirement, as written, in ANSI/WCMA–2018 for operating cords on custom window coverings is not adequate to address the risk of injury, because the maximum cord length and a minimum pull force required to operate the system is not specified in the standard. CPSC requests comments on whether additional requirements for retractable cords, such as a maximum exposed cord length and a minimum pull force for a single retractable cord lift system, can address the strangulation hazard.

Based on staff's analysis, the Commission concludes that ANSI/WCMA-2018 does not adequately address the strangulation hazard posed by accessible operating cords on custom window coverings, because the standard allows these products to have one or more operating cords that is longer than 8 inches, and the standard allows custom products to have continuous-loop operating systems.

### 3. Window Covering Technologies

Stock window coverings currently on the market, as well as a substantial portion of custom window coverings, implement safer technologies to address the hazards identified in the incident analysis review. These products include, but are not limited to, cordless window coverings, window coverings with rigid cord shrouds, and cordless motorized window coverings.

Operating cords can be made inaccessible with passive guarding devices. Passive guarding devices allow the user to operate the window covering without the direct interaction of a hazardous cord. These types of window coverings use rigid cord shrouds, integrated cord/chain tensioners, or crank mechanisms.

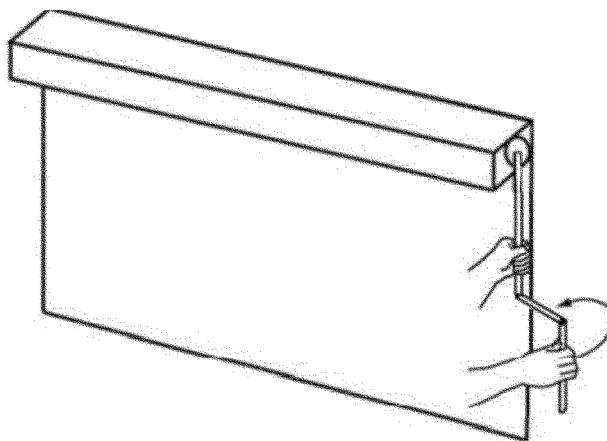
Cordless blinds can be raised and lowered by pushing the bottom rail up or pulling the rail down. This same motion may also be used to adjust the position of the horizontal slats for light control. Through market research, CPSC staff found several examples of cordless blinds that are made with a maximum height of 84 inches and a maximum width of 144 inches.

Rigid cord shrouds can be retrofitted over various types of window coverings to enclose pull cords and continuous-cord loops. A rigid cord shroud allows the user to use the pull cords while eliminating access to the hazardous cords. CPSC staff worked with WCMA and other members from March through December 2018, to develop draft requirements to test the stiffness of "rigid cord shrouds," by measuring the deflection and deformation.<sup>22</sup> In December 2018, WCMA sent the agreed-upon language for rigid cord shrouds to the members; however, the language was never balloted. This NPR includes requirements for rigid cord shrouds, based on the previously developed test, so that custom window coverings can use a rigid cord shroud to comply with

the proposed rule through inaccessibility of the operating cord.

The proposed rigid cord shroud requirements in the NPR include two tests: The "Center Load" test and the "Axial Torque" test, to ensure the stiffness and the integrity of the shroud so that the enclosed operating cord does not become accessible when the shroud is twisted. The Center Load test verifies the stiffness of the cord shroud, by measuring the amount of deflection in the shroud when both ends are mounted, and a 5-pound force is applied at the mid-point. This test ensures that the shroud is not flexible enough to wrap around a child's neck. The Axial Torque test verifies that the cord shroud's opening does not enlarge to create an accessible cord opening when the shroud is twisted. Tab H of Staff's NPR Briefing Package contains additional detail on the requirement. The Commission solicits comments on the proposed test methods set forth in the proposed regulatory text.

Crank mechanisms (Figure 15) can replace the continuous-loop mechanism with a crank/wand. Because the operating cord is replaced with a wand, the strangulation hazard is completely removed.



**Figure 15. Crank Mechanism**

Finally, cordless motorized blinds can be raised and lowered using an electric motor with a supplied controller. These window coverings function similarly to the motorized projector screens. Because these window coverings use a motor instead of a pull cord, they do not contain exposed hazardous operating cords.

#### *B. Assessment of International Standards for Window Covering Operating Cords*

The 2015 ANPR identified three jurisdictions that specify requirements for the safety of window coverings: (1) Australia, (2) Canada, and (3) Europe. Australia has a Trade Practices (Consumer Product Safety Standard-Corded internal Window coverings) Regulation 2010 F2010C00801. Europe has the EN: 13120 Internal Blinds—

Performance requirements, including safety, EN 16433 Internal Blinds—Protection from strangulation hazards—test methods, and EN 16434 Internal Blinds—Protection from strangulation hazards—Requirements and Test methods for safety devices. Canada previously had the Corded Window Covering Products Regulation SOR/2006-112. Since the ANPR, the Canadian standard was revised to SOR/2019-97.

<sup>22</sup> The 2018 standard tests rigid cord shrouds for UV stability and impact.

ANSI/WCMA–2018 is more stringent than Australia Regulation, 2010 F2010C00801, or EN 13120, EN 16433, or EN 16434. However, ANSI/WCMA–2018 is not as stringent as the new Canadian regulation, SOR/2019–97. Canada’s window covering regulation states that any window covering cord that can be reached must be too short to wrap around a 1-year-old child’s neck (*i.e.*, not more than 22cm (8.66 inches) in length) or form a loop that can be pulled over a 1-year-old child’s head (*i.e.*, not more than 44cm (17.32 inches) in circumference). Canada’s regulation also requires that all window coverings meet one of the following conditions:

- *Section 4:* The cord shall be unreachable/inaccessible.
- *Section 5 and 6:* Reachable/accessible cords shall be 22 cm (8.66 inches) or less when pulled with 35N (7.87 lbf).
- *Section 7:* Reachable/accessible looped cords shall be 44 cm (17.32 inches) or less in perimeter when pulled with 35N (7.87 lbf).

Both the Canadian standard and the ANSI/WCMA stock window covering requirements do not permit a long accessible operating cord. The Canadian standard is more stringent, however, because the Canadian standard applies to both stock and custom products, while the ANSI/WCMA standard contains separate requirements for stock and custom products, which allows long, accessible operating cords on custom products.

Although the Canadian standard is similar to the ANSI/WCMA’s stock window covering requirement, there are some differences. For example, ANSI/WCMA–2018 and the Canadian

standard take a different approach to the definition of “Accessible Cord.” Section 3, definition 2.01 of ANSI/WCMA–2018 defines an “accessible cord” as a cord that can touch a cord accessibility probe and a cord shroud accessibility probe. Section 1 of the Canadian regulation states that a “reachable/accessible cord” is:

the part of the cord that any person can touch when the corded window covering has been installed whether the window covering is fully opened, fully closed or in any position in between.

This definition of “accessible cord” in the Canadian standard is subjective because the definition applies to a person with unspecified measurements who shall be able to reach a cord. The definition of “accessible cord” in ANSI/WCMA–2018 uses a performance requirement with accessibility probes based on the dimension of a child’s fingers. The approach in ANSI/WCMA–2018 is more stringent than the Canadian standard because it requires a test that is not subjective and that provides consistent results when tested.

#### *C. Human Factors Assessment of Operating Cord Requirements in ANSI/WCMA–2018*

Operating cord requirements for stock window coverings in section 4.3.1 of ANSI/WCMA–2018 effectively eliminate the strangulation hazard associated with operating cords. However, operating cord requirements for custom window coverings in section 4.3.2 of ANSI/WCMA–2018 allow operating cords to meet one of the three requirements for operating cords on stock window coverings in section 4.3.1 of the standard (cordless, inaccessible,

or 8 inches or shorter) to comply, but the standard also allows operating cords that have accessible cords that are longer than 8 inches, such as single retractable cord lift systems, continuous loop operating systems, and standard operating systems. Thus, the ANSI standard allows free-hanging and accessible cords on custom window coverings that do not eliminate the strangulation hazard associated with operating cords.

#### *1. Default Requirements for Custom Operating Cords Allow Accessible Cords*

In the earlier versions of the ANSI/WCMA standard, the standard contained no specified length for operating cords. However, ANSI/WCMA–2018 provides the following two new requirements for custom window coverings, which are intended to reduce the hazard associated with free-hanging and accessible operating cords:

- Section 4.4 of ANSI/WCMA–2018 requires that the default cord length should be no more than 40 percent of the product height when the window covering is fully lowered. The exception is when a custom length is required to ensure user accessibility. Figure 16 shows the length of operating cords that are longer than 40 percent of product height and shorter cords that comply with this new requirement.

- Section 4.4.1 requires that a wand tilt be the default operating system, and cord tilt be an allowable customer option (Figure 16). The length requirement in section 4.4 still applies to tilt cords.

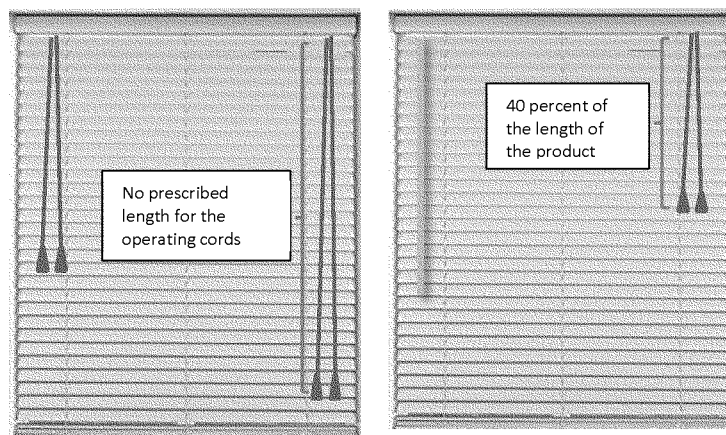


Figure 16. Window blind with operating cords longer than 40 percent of the length of the product and tilt cords to tilt the slats (left). Window blind with operating cords equal to 40 percent of the product length and wand tilt replacing tilt cords (right)

CPSC has concerns with operating cords that comply with the requirements in sections 4.4 and 4.4.1 because:

- The length of operating cords can still be hazardous when the window

covering is fully lowered. First, a child can wrap the cord around their neck; only about 8 inches of cord is enough to encircle the child's neck.<sup>23</sup> Additionally, multiple cords can tangle

and create a loop in which a child can insert his/her head; a loop with a circumference of about 17 inches is sufficient for child's head to enter.<sup>24</sup> Figure 17 shows these two scenarios.

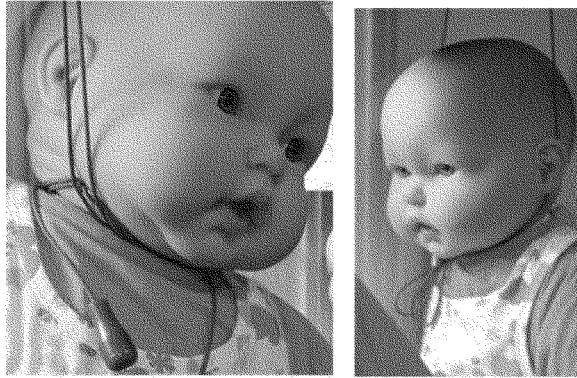


Figure 17. Demonstration of wrapped cords around (doll) child's neck (left), (doll) child's head is through the loop created by entangled multiple cords (right)

- Operating cord(s) will get longer as the window covering is raised, making it easier for a child to access and manipulate the hazardous operating cord.

- If the cord tilt option is chosen, the cord tilt can also be long enough to be wrapped around a child's neck or be tangled and create a loop in which a child's head can enter.

- Consumers can easily change the default options during the custom order process, thus maintaining the ability to choose an accessible operating cord that exceeds 8 inches long, posing a strangulation hazard.

Incident data show that children have strangled on operating cords in various ways. As reported in the incident data in section I.E of this preamble, and Tab A of Staff's NPR Briefing Package, custom window coverings were involved in at least 35 incidents. Table 4 shows how children accessed window covering cords. In 14 incidents, the child climbed on an item including couch, chair, toy chest or dog kennel and accessed the cord. In four cases, a child was on a sleeping surface, including a bed (2), playpen, and a crib. In six incidents, a child was able to get to the cord from the floor.

TABLE 4—CHILD'S INTERACTION SCENARIO IN INCIDENTS ASSOCIATED WITH CUSTOM PRODUCTS

Scenario	Number of incidents
Climbed on an item to reach the cords .....	14
On floor .....	6
On bed, in playpen or crib ....	4
Unknown .....	11
<i>Total</i> .....	<i>35</i>

The incident data demonstrate that accessible cords that are longer than 8 inches are hazardous. For example, the data show that even if operating cords are kept close to the window covering head rail with some means, children climb and access the cords. Additionally, a significant number of operating pull cord incidents occurred in fully or partially raised window coverings, which essentially reduces the benefit of having a default length of 40 percent of the window covering height in fully lowered position of the window covering, because the cords will get longer as the product is raised.<sup>25</sup> Based on these data, CPSC concludes that even though the requirements in sections 4.4 and 4.4.1 of the ANSI standard attempt to reduce the strangulation hazard associated with accessible and hazardous operating cords, these

requirements are still inadequate, because they continue to allow accessible and long cords to be part of the window covering.

## 2. Warning Labels in ANSI/WCMA–2018, Alone, Are Inadequate To Address the Strangulation Hazard Associated With Operating Cords

The ANSI/WCMA–2018 standard requires that corded custom window covering products have warning labels regarding the strangulation hazard to children, as summarized below:

- A generic warning label must be permanently attached to the bottom rail, including a pictogram depicting the hazard of a cord wrapped around a child's neck. The content explains the strangulation hazard and what consumers need to do to avoid the hazard (keeping cords out of children's reach, shortening cords to prevent reach, moving crib and furniture away.)

- A similar warning label must be placed on product merchandising materials which includes, but is not limited to, the sample book and the website (if the website is relied upon for promoting, merchandising, or selling on-line).

- A warning tag containing a pictogram and similar text as above must be placed on accessible cords, including operating cords, tension devices that are intended to keep

<sup>23</sup> Neck circumference of fifth percentile 6–9-month-old children is 8 inches (BSI, 1990 as cited in Norris and Wilson, 1995.)

<sup>24</sup> Head circumference of fifth percentile 6–9-month-old children is 16.5 inches (Snyder et al., 1977).

<sup>25</sup> A total of 36 out of 46 pull cord incidents when position of the window covering was known have occurred with partially or fully raised window covering (1996 to 2016 incidents.)

continuous loops taut, and on inner cords of a roll up shade.

Formatting of warning labels in the ANSI standard is required to follow ANSI Z535 standards, which are the preeminent set of standards to develop safety labels.<sup>26</sup> This includes a signal word (“Warning”) in all uppercase letters measuring not less than  $\frac{5}{16}$  in (8 mm) in height and preceded by an ANSI safety alert symbol (an equilateral triangle surrounding an exclamation point) of at least the same size, the rest of the warning message text be in both uppercase and lowercase letters, with capital letters measuring not less than  $\frac{1}{8}$  in (3 mm). A Spanish version of the label is also required.

Among the 35 incidents involving custom products, at least 19 included a permanent label. Table 5 shows the presence of the labels on the incident units.<sup>27</sup> The presence of the label was unknown in 10 incidents, and no label was reported in 6 incidents. In some cases, parents reported that they were aware of the cord hazard, but never thought their child would interact with them; in a few cases, parents were aware of the operating cord hazard but not the inner cord hazard. In some cases

involving bead chains, parents thought that the connector clip on the bead chain loop was supposed to break away. None of the incident units had a hang tag. One unit had the hang tags tucked into the head rail, which was discovered when the unit was removed.

TABLE 5—PRESENCE OF PERMANENT WARNING LABELS IN INCIDENT UNITS

Permanent label present	Number of incidents
Yes .....	18
Mostly peeled off .....	1
No .....	6
Unknown .....	10
<i>Total</i> .....	<i>35</i>

Research demonstrates that consumers are less likely to look for and read safety information about the products that they use frequently and are familiar with (Godfrey et al., 1983). Given that many of the window covering incidents occurred on products with at least the permanent label attached on the bottom rail, and the high likelihood that consumers have window coverings in their homes and

almost certainly use them daily, and thus have high familiarity, even well-designed warning labels will have limited effectiveness in communicating the hazard on this type of product.

Based the forgoing research and the incident data, warning labels are unlikely to effectively reduce the strangulation risk due to hazardous cords on window coverings, because consumers are not likely to read and follow warning labels on window covering products, and strangulation deaths among children occur quickly and silently, such that parental supervision is insufficient to address the incidents.

### 3. Safety Devices Are Inadequate To Address the Risk of Strangulation

ANSI/WCMA–2018 requires that custom products with accessible operating cords include cord cleats with instructions for use and mounting. The standard also requires that custom products with a continuous loop operating system contain a cord tension device. Figure 18 shows examples of cord cleats and tension devices.

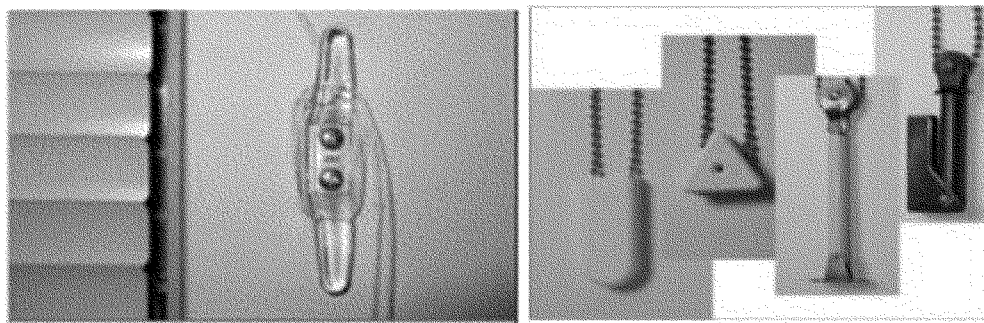


Figure 18. Examples of cord cleat (left), cord tension device (right)

#### (a) Tension Devices

ANSI/WCMA–2018 requires that a tension device be attached to the cord or bead chain loop by the manufacturer and also requires a sequential process or tools to be removed, which essentially means that consumers would have to go through multiple steps or need to use a tool such as a screwdriver to remove the tension device. Unless installed or altered from the shipped condition, the voluntary standard also requires window coverings to be designed so that they are prevented from operating, at least partially, unless the tension device is properly installed. The standard also

requires that the tension device be supplied with fasteners and instructions and meet the durability test requirements.

CPSC has concerns with using safety devices to reduce the risk of strangulation for several reasons. Securing safety devices goes beyond the installation of the window covering itself, which increases the “cost of compliance” that is the time and effort to use the product. Also, safety devices, such as tension devices, usually require drilling holes on the wall or windowsill that may not be permissible for renters

and may not be desirable by homeowners.

Among the 35 incidents involving custom products, 12 had continuous loop cords or bead chains. In one incident, the child was able to insert his head through the loop even though the tension device was attached to the wall, originally installed by a professional. In 2 incidents, a tension device was attached to the cord but not to the wall. In one incident, a tension device broke prior to the incident. In 4 incidents, staff confirmed that a tension device was not installed. The remaining 4 incidents contained no mention of tension device.

<sup>26</sup> The ANSI Z535 Series provides the specifications and requirements to establish uniformity of safety color coding, environmental/

facility safety signs and communicating safety symbols. It also enables the design, application, use

and placement of product safety signs, labels, safety tags and barricade tape.

<sup>27</sup> In two cases, staff examined exemplar units.



## (b) Cord Cleats

While the tension device is intended to prevent the window covering at least “partially” from operating, cord cleats have no impact on the operation of the window covering. Even when a cord cleat is installed, the consumer must wrap the cord around the cleat every time the product is raised or lowered to mitigate the strangulation hazard, which means that the user’s active involvement is necessary every time. Further, cord cleats can be accessed by a child if he/she climbs up. In one incident, although caregivers normally wrapped the cord around the cleat, on the day of the incident, cords were not wrapped, and the child accessed the cords after climbing on a couch.

## (c) Consumer Perception of Safety Devices

Some consumers may believe that because they either do not have young children living with them or visiting them, installation of the safety devices is unnecessary. However, window coverings last a long time, and when homes are sold or new renters move in, the existing window coverings, if they are functional, usually remain installed and could be hazardous to new occupants with young children.

CPSC issued a contract to investigate the effectiveness of safety devices in reducing the risk of a child’s access to hazardous cords and loops on window coverings. Westat conducted research under Contract CPSC–Q–15–0064.<sup>28</sup> The research objective was to provide CPSC with systematic and objective data on the factors that impact installation, use, and maintenance of window covering safety devices; assess how these factors impact the likelihood of correct installation, use, and maintenance; and identify how the factors relate to the goal of reducing children’s access to hazardous cords and loops on window coverings. Westat reviewed the window coverings and safety devices available in brick-and-mortar and online stores; performed task analysis to identify key issues and specific questions to be addressed in the

focus groups; developed materials and procedures for the focus groups; and conducted the focus groups. Major findings from the study point to:

- (i) A general awareness about cord entanglement among caregivers, which does not translate to precautionary action, due partly to the insufficient information provided at the point of sale;
- (ii) Lack of awareness of the speed and mechanism of the injury that may lead to caregivers’ underestimating the importance of providing an adequate level of supervision;
- (iii) Difficulty using and installing safety devices as primary reasons for not using them; and
- (iv) Inability to recognize the purpose of the safety devices provided with window coverings.

In general, participants in the Westat study preferred a cordless window covering or a passive mechanism, which does not require intentional action by the user. Westat concluded that there could be benefits from enhancing the public’s awareness and understanding of the unique nature of incidents (*e.g.*, speed, mechanism) and explaining a child’s vulnerability in all rooms in the home, and that providing specific information at the point of sale, could be partially helpful. However, Westat stated that these improvements would be incremental, and that increasing the use of cordless window coverings would be needed to achieve significant benefits.

#### 4. Relying on Parental Supervision Is Inadequate To Address the Risk of Strangulation

CPSC has recognized cords on window coverings as a hidden hazard for many years. Strangulation with cords requires only a few minutes. Because even young children are left unsupervised for a few minutes or more in a room that is considered safe, such as a bedroom or family room, parental supervision is unlikely to be effective to eliminate or reduce the hazard. Children can wrap the cord around their necks, insert their heads into a cord loop and get injured, or die silently in a few

minutes in any room, with or without supervision.

Even when supervision is present, the level of supervision varies and distractions and other limitations to supervision exist. For example, CPSC has incident reports involving five near-fatal strangulations, in which the parent was either nearby or in the same room and was able to rescue the child before the child lost consciousness.<sup>29</sup> Among the 35 incidents involving custom products, incident location was known in 33 incidents. In 18 incidents, a child was in a room shared by the family members such as a family room, living room, and sunroom. Eleven of 18 incidents were not witnessed, whereas 5 were witnessed by an adult, 2 incidents occurred in the company of other children. Almost all the incidents (14/15) that occurred in a bedroom were unwitnessed, including one victim’s father sleeping in the same room; only one was witnessed by another child, a 5-year-old (Table 6). Out of the 14 fatalities, 13 were not witnessed, whereas, out of the 21 nonfatal incidents, 12 were not witnessed.

Research supports these observations. People cannot be perfectly attentive, particularly over long periods of time, regardless of their desire to do so (Wickens & Hollands, 2000). Caregivers are likely to be distracted, at least occasionally, because they must perform other tasks, are exposed to more salient stimuli, or are subject to other stressors, such as being responsible for supervising more than one child. In fact, research by Morrongiello and colleagues (2006) indicates that older toddlers and preschool children (2 through 5 years old) are regularly out of view of a supervising caregiver for about 20 percent of their awake time at home, and are completely unsupervised (*i.e.*, the parent was not listening to or watching what the child was doing at all) for about 4 percent of awake time in the home. The most common rooms in which children were left alone and unsupervised were the living or family room and the bedroom.

TABLE 6—LOCATION OF INCIDENTS AND WHETHER THE INCIDENTS WERE WITNESSED

Location	Fatal	Nonfatal
Bedroom:		
Witnessed by children .....	1	.....
Not witnessed .....	8	6
Family/Living/Dining room:		
Witnessed by Adult .....	.....	5

<sup>28</sup> <https://cpsc.gov/s3fs-public/Window%20Coverings%20Safety%20Devices%20Contractor%20Reports.pdf>.

<sup>29</sup> Video capturing a child’s entanglement in the cords at <https://www.youtube.com/watch?v=2s6nBgy3MJA>, accessed on 8/13/2021.

TABLE 6—LOCATION OF INCIDENTS AND WHETHER THE INCIDENTS WERE WITNESSED—Continued

Location	Fatal	Nonfatal
Witnessed by children .....	.....	2
Not witnessed .....	5	6
Unknown .....	.....	2
<i>Grand Total</i> .....	14	21

#### 5. Assessment of Operating Cord Requirements for Window Coverings

CPSC staff evaluated the requirements that apply to operating cords on stock window coverings in section 4.3.1 of ANSI/WCMA–2018 (no operating cords, short operating cords 8 inches or shorter, or inaccessible operating cords determined per the test requirement in Appendix C of ANSI/WCMA–2018). Having no operating cords effectively eliminates the strangulation hazard associated with operating cords because there is no cord to cause strangulation; therefore, this is an adequate requirement. Having a short cord that does not exceed 8 inches of length in any position of the window covering also effectively eliminates the strangulation hazard associated with operating cords; the neck circumference of fifth percentile 6–9-month-old children is 8 inches (BSI, 1990 as cited in Norris and Wilson, 1995), therefore this is an adequate requirement. Ensuring that the operating cords are inaccessible is another adequate requirement. This requirement is tested in ANSI/WCMA–2018 using a probe that is intended to simulate the finger size of a young child. The diameter of the probe is 0.25 inches, based on fifth percentile 2–3.5-year old's middle index finger diameter (Snyder et al., 1977.) at 0.33 inches and the off-the-shelf availability of a 0.25-inch diameter dowel pin. If the probe cannot touch the cords, the cord is then deemed inaccessible. Staff assessed that child anthropometry and strength related inputs to develop these requirements are adequate to address the strangulation risk associated with hazardous cords.

Staff assessed the operating cord requirements on custom window coverings, which are different than those required on stock window coverings in section II.A of this preamble and Tab G of Staff's NPR Briefing Package. Based on the staff's assessment, the Commission proposes to require the same requirements for operating cords on stock and custom window coverings to effectively eliminate the unreasonable risk of

strangulation associated with operating cords on custom window coverings.

#### 6. Addressability of Incidents With the Proposed Rule

CPSC received reports of 194 incidents that reportedly occurred from January 2009 through December 2020. Staff identified 35 of these incidents as having occurred with a custom window covering; 50 with stock window covering, and in 109 cases, there was not enough information to identify whether the incident unit was stock or custom window covering. Out of the 35 custom window covering incidents, a continuous loop was involved in 12 incidents; operating cords, including tilt cords, were involved in 19 incidents; 3 incidents involved inner cords; and 2 incidents involved an unknown cord type.

The stock window covering requirements in ANSI/WCMA–2018 adequately address both the continuous loops and operating cords by removing cords entirely, making them inaccessible, or by requiring them to be no longer than 8 inches. All three of the inner cord incidents have reportedly occurred on custom Roman shades that did not comply with the requirements in the standard; if the products had complied with the voluntary standard, staff concludes that those incidents would have been prevented. Moreover, as reviewed in section II.E of this preamble and Tab E of Staff's NPR Briefing Package, new window coverings substantially comply with the inner cord voluntary standards.

All 30 incidents associated with operating cords and continuous loops (out of 35 total incidents involving custom products, with the others including 3 that involved inner cords and 2 unknown) would have been prevented if the custom window covering complied with the requirements for stock window coverings in the ANSI/WCMA standard. The three inner cord related incidents would have been prevented if the incident units complied with the existing standard. Therefore, if the custom window covering complied with the recommended requirements, 86 percent (30/35) of the custom product

incidents would have been addressed in addition to the 8.6 (3/35) percent of the inner cord incidents that would be addressed by complying with the voluntary standard. Given that all accessible and hazardous cords are effectively addressed with the recommended requirements, the remaining 5.4 percent of the incidents (which represented 2/35 incidents for which the involved cord type was unknown) would also be addressed.

Even though a large portion of the reported incidents did not have sufficient information to categorize the incident product as stock or custom, all of the hazard patterns involving unknown stock or custom product incidents (109) would also be addressed for future products if the Commission issues a final rule for operating cords on custom window coverings. If the unknown products are stock products, such products would be part of the market we now find to be substantially compliant with ANSI/WCMA–2018. If the unknown products are custom products, they would comply with the rule for operating cords on custom products. The hazard associated with inner cords is addressed by compliance with the ANSI standard; the Commission finds that all stock and custom products substantially comply with ANSI/WCMA–2018.

#### 7. Accessibility Concerns

Some manufacturers, including WCMA, have expressed concern about users with a disability, who may not be able to reach cordless window coverings to successfully operate the product, and urge that these consumers still need a corded product. However, CPSC staff advises that various tools exist on the market designed to make the operation of the window coverings easier and accessible to consumers in a variety of use locations. For example, extension poles are already available for window coverings that are out of reach, such as poles for skylights and cordless products (Figure 19). Wands are also available to make it easier for users to

operate it with a power grip instead of a pinch grip (Figure 20).

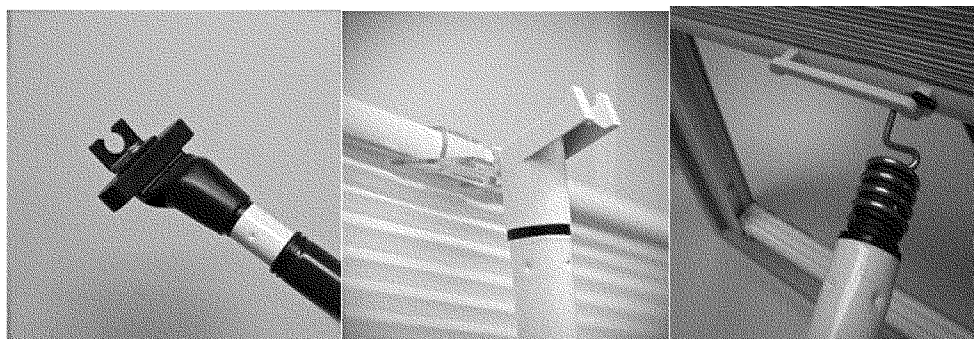


Figure 19. Examples of extension poles currently available on the market  
(Source: Extension poles for out of reach shades | CellularWindowShades.com)<sup>30</sup>

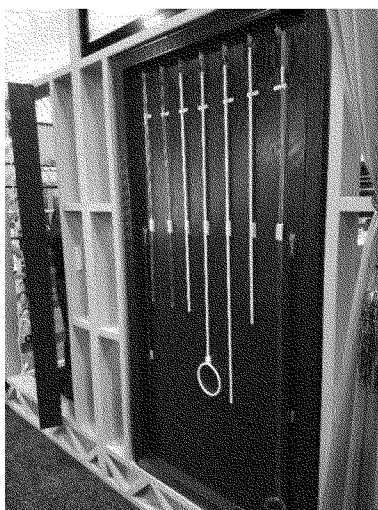


Figure 20. Wand with a hand grip shown in the middle.  
Photo provided by Parents for Window Blind Safety

## 8. Information and Education

Since the first safety alert was issued in 1985, CPSC has been warning parents of the danger of child strangulation due to corded window coverings. Every October, CPSC participates jointly with Window Covering Safety Council (WCSC) in National Window Covering Safety Month to urge parents and caregivers to check their window coverings for exposed and dangling cords and to take precautions. Both CPSC and WCSC recommend cordless window coverings at homes where young children live or visit.

In addition to traditional communication methods, CPSC reaches out to consumers using social media, such as safety blogs and online chats, to

create awareness of the hazards associated with corded window coverings. Staff has not assessed the effectiveness of these public education campaigns, but given the long history on window covering safety campaigns, the campaigns have had limited impact.

### *D. Performance Requirements for Operating Cords on Custom Window Coverings*

ANSI/WCMA–2018 contains strong requirements for operating cords on stock window coverings. Stock window coverings on the market demonstrate the feasibility of safer technologies to meet these requirements. Due to the ongoing window covering cord incidents, high severity of the outcomes, proven

technical feasibility, and the ineffectiveness of warnings and safety devices for this class of products, CPSC proposes in this NPR to require that operating cords on custom window coverings be identical to the requirements for operating cords on stock window coverings, as set forth in section 4.3.1 of ANSI/WCMA–2018. Section 4.3.1 of ANSI/WCMA–2018 requires that operating cords be cordless, inaccessible, or 8 inches or shorter.

Additionally, this NPR includes a rigid cord shroud requirement based on the WCMA Rigid Cord Shroud Task

<sup>30</sup> Mention of trade names or products does not constitute endorsement or recommendation for use, nor does it imply that alternative products are unavailable or unable to be substituted after

appropriate evaluation. The products are identified here to describe the concept of accessibility tools. Such identification is not intended to imply recommendation or endorsement by the U.S.

Consumer Product Safety Commission nor is it intended to imply that the products identified are necessarily the best available for this purpose.

Group's work that was never balloted.<sup>31</sup> Implementing the rigid cord shroud requirements would allow custom window coverings to meet the mandatory rule by using a rigid cord shroud to make an operating cord inaccessible.

#### *E. Window Coverings Substantially Comply With the Voluntary Standard*

The Commission has several bases to determine preliminarily that window coverings substantially comply with the requirements for operating cords in ANSI/WCMA–2018.<sup>32</sup> First, WCMA, the trade association for window coverings and the body that created the voluntary standard, stated in a comment on the ANPR (comment ID: CPSC\_2013–0028–1555) that there has been substantial compliance with the voluntary standard since its first publication. WCMA also stated that the association's message to all manufacturers is that, to sell window coverings in the United States, compliance with the standard is mandatory.

Additionally, the Commission instructed the staff to investigate the level of compliance of window coverings with the voluntary standard. CPSC contracted with D+R International, which interviewed window covering manufacturers and component manufacturers to collect anecdotal information on the distribution of stock and custom product sales and the impact of compliance with the voluntary standard (D+R International, 2021). Various manufacturers indicated retail customers would not stock noncompliant products. Manufacturers are also aware of their customers' procedures, and stated that they would not ship to them, if there were concerns about the assembly and installation process. The D+R report indicates that the voluntary standard has caused U.S. window covering manufacturers to design and offer cordless lift operations for most stock window covering categories. All manufacturers interviewed were aware of the standard

and had implemented compliance in all stages of their development process, from product design to fabrication.

CPSC field staff also confirmed compliance of the categorization for "stock" and "custom" window coverings, as defined in the ANSI/WCMA standard. CPSC field staff conducted unannounced in-store visits to 18 firms, comprising wholesalers, manufacturers, and retailers. Window coverings in 13 locations demonstrated compliance with the voluntary standard for operating cords for stock and custom products. However, in four locations, staff observed noncompliance of custom window coverings with the ANSI/WCMA standard, including: Length of operating cords 40 percent longer than the window covering length, with no accompanying specific customer request; lack of warning label; lack of manufacturer label; lack of hang tag; and use of a cord tilt, instead of wand tilt, without an accompanying specific customer request. Staff found one location with a noncomplying stock window covering. This stock window covering was being sold with long beaded-cord loops in various sizes. Tab E of Staff's NPR Briefing Package contains a more detailed description of staff's assessment of substantial compliance with the voluntary standard.

Finally, CPSC technical staff tested custom product samples, using test parameters defined in ANSI/WCMA–2018, with a cord accessibility probe and force gauge. The samples tested by staff also indicated a high level of conformance in custom products regarding inner cord accessibility.

Based on incident data, WCMA's statements, contractor report findings, and staff's examination and testing of window covering products, the Commission preliminarily determines that a substantial majority of window coverings sold in the United States comply with the readily observable safety characteristics identified in ANSI/WCMA–2018.

### **III. Response to Comments on the ANPR**

On January 16, 2015, the Commission published an ANPR to initiate rulemaking and seek information and comment on regulatory options for a mandatory rule to address the risk of strangulation to young children on window covering cords. The comment period on the ANPR was scheduled to end on March 17, 2015. However, in a letter dated February 2, 2015, WCMA requested a 75-day extension of the comment period to complete multiple studies that WCMA commissioned. The

Commission granted WCMA's request to extend the comment period for the ANPR until June 1, 2015. CPSC received 1,010 comments during the comment period: 748 were in favor of a mandatory rule, 254 were against a mandatory rule, and eight had no clear opinion.

As reviewed in this preamble, since the public comment period on the ANPR closed in 2015, the ANSI/WCMA standard has substantially improved to effectively address the strangulation risk associated with stock window coverings. Accordingly, many of the comments on the ANPR have been obviated by updates to the ANSI/WCMA standard, and specifically by the requirements for operating cords on stock window coverings and requirements for inner cords on stock and custom window coverings. Below we summarize the comments received on the ANPR and provide responses to the issues raised in the comments.

#### *A. General Support or Opposition for a Mandatory Standard*

*Comment 1:* Seven hundred and forty-eight (748) commenters expressed general support for the rulemaking effort, some stating that given the hidden nature and severity of the risk, a mandatory standard is necessary. Two hundred and fifty-four (254) commenters submitted comments disagreeing with the proposed rulemaking, with most suggesting that a regulation will have a negative impact on the window covering industry.

*Response 1:* Although the Commission supports the changes to the ANSI/WCMA standard, as evidenced by the proposed rule under section 15(j) of the CPSA; an unreasonable risk of injury remains with operating cords on custom window coverings. Accordingly, we support a mandatory rulemaking to address this unreasonable risk of injury. Window coverings should be inherently safe and should not require consumer intervention due to the silent, quick, and hidden nature of the strangulation hazard. Since the ANPR was published in 2014, 37 children have died by strangulation on a window covering cord.

#### *B. Voluntary Standard*

*Comment 2:* Several commenters expressed support for the voluntary standard and felt that working through the voluntary standards process to develop requirements for window coverings would create a more robust standard. Other commenters stated that a mandatory standard is necessary to address the strangulation hazard because decades have gone by and the

<sup>31</sup> Although staff has never seen a stock product with a rigid cord shroud, staff encourages WCMA to revise the voluntary standard to include this requirement for stock and custom products.

<sup>32</sup> CPSC staff observes some decline in pediatric incident data that suggests compliance with the voluntary standard is effective at reducing the number of incidents (see Tab A of Staff's NPR Briefing Package for CPSRMS and NCHS data). We expect a similar trend to continue for stock products given the substantial improvements made to the standard in 2018. However, because window coverings are used for many years, and will be replaced over time with safer products that conform to the voluntary standard, several more years of incident data are required to more definitively demonstrate a reduction in incidents.

number of deaths and permanent injuries associated with window covering cords remain consistent. These commenters noted that voluntary standards have failed to effectively address the strangulation hazard for nearly 20 years.

*Response 2:* CPSC staff worked closely with WCMA since 1995 to develop and revise the ANSI/WCMA A100.1 standard. Since the public comment period on the ANPR closed in 2015, the WCMA steering committee developed and published improvements to the voluntary standard, with substantial improvements in the 2018 revision to effectively address the strangulation risk associated with stock window coverings. For stock window coverings, the ANSI/WCMA standard requires: no operating cords, inaccessible cords, or short static cords that do not exceed eight inches in length. As detailed in this NPR briefing package, CPSC staff assesses that the requirements for operating cords on stock window coverings, and the requirements for inner cords on stock and custom window coverings, in ANSI/WCMA are adequate to address the risk of strangulation. However, ANSI/WCMA–2018 does not adequately address the hazard associated with operating cords on custom window coverings.

Given the availability of technologies applicable to both stock and custom window coverings, and the identical hazard patterns associated with cords on stock and custom window coverings, custom window coverings can be made as safe as stock window coverings to address the strangulation risk to children, by complying with the same operating cord requirements as stock window coverings. We agree with commenters regarding the timing concern, given that it took 22 years to get to an effective voluntary standard for cords on stock window coverings. Based on this experience, CPSC staff does not recommend delaying a rule to address operating cords on custom window coverings, to wait for the ANSI/WCMA standard to address these operating cords, and we concur.

#### *C. Hazard Communication: Warnings, Public Awareness, and Education*

*Comment 3:* At least twelve commenters suggested that the Commission should rely on warning labels and educational campaigns to address the strangulation hazard. At least seven commenters stated that warning labels and educational efforts were tried, did not work, and are insufficient to address the strangulation risk.

*Response 3:* Section II.C of this preamble and Tab I of Staff's NPR Briefing Package discuss the reasons that warnings are unlikely to adequately address the strangulation hazard associated with window covering cords. Briefly, warning labels are not likely to be effective on products that consumers use frequently and are familiar with, because consumers are less likely to look for and read safety information. Most of the incident window coverings that CPSC reviewed had a permanent warning label on the product. Even well-designed warning labels will have limited effectiveness in communicating the hazard on this type of product.

However, public awareness is a crucial component in making safe purchasing decisions and safely using window coverings at home. Public information campaigns are on-going. For example, CPSC and the Window Covering Safety Council (WCSC) have joined forces to raise awareness regarding the strangulation risks presented by window covering cords. Since 2003, October has been designated "Window Covering Safety Month" by CPSC and the Window Covering Safety Council (WCSC). Currently, CPSC does not have information to evaluate the effectiveness of public information campaigns on reducing the risk of injury associated with corded window coverings. However, CPSC has conducted information and education campaigns for several decades on the hazards associated with corded window coverings; these efforts have had limited effectiveness in reducing injuries and deaths. Accordingly, the Commission will not rely solely on education campaigns to address the risk of injury and will move forward with rulemaking.

#### *D. Off-the-Shelf Products*

*Comment 4:* At least two commenters suggested that off-the-shelf window coverings carry higher risks, because consumers install many window coverings incorrectly. One of these commenters suggested that consumers typically do not read the installation instructions and are not familiar with safety devices, such as cord cleats. Another commenter suggested that stock window coverings are more dangerous than custom window coverings because stock window coverings can have longer lengths of accessible pull cords than custom window coverings, stock window covering customers are less likely to get safety information, and stock window coverings are likely to be installed by consumers who may be unfamiliar with the hazard.

*Response 4:* Based on CPSC staff's assessment, the Commission has determined that the requirements for stock window coverings in the 2018 version of the ANSI/WCMA standard adequately and effectively address the operating and inner cord strangulation hazards associated with stock products. The standard requires that stock window coverings have: No operating cords, cords shorter than 8 inches, or inaccessible cords. The standard similarly requires that if inner cords are present, they either be inaccessible, or too short to create a loop large enough to insert a child's head.

The Commission agrees that consumer installation issues should not make window coverings less safe. For example, ANSI/WCMA–2018 requirements for corded stock window coverings are not dependent on installation, and the requirements do not rely on safety devices. However, ANSI/WCMA–2018 still relies on safety devices, such as cord cleats and tension devices, to address the strangulation hazard on custom window coverings. Because consumers can choose corded options that rely on the installation of external safety devices, and diligent monitoring and use of safety devices required of consumers, custom window coverings are now less safe than stock window coverings under the ANSI/WCMA standard.

Although the Commission agrees that consumers may not be as knowledgeable about safety devices as professional installers, most of the custom products involved in incidents were installed by professionals, and yet still lacked safety devices. Educating consumers is important to reduce the risk associated with the corded window coverings already installed in consumers' homes. However, manufacturing inherently safe custom window coverings that are on par with the stock window coverings that are compliant with ANSI/WCMA–2018 will have a more substantial impact on safety, as stock window coverings now do not have to rely on additional, consumer behavior-related measures to make the window covering safe.

#### *E. Impact on Elderly and Disabled Consumers*

*Comment 5:* At least eight commenters suggested that cordless products will be difficult to use for those consumers who cannot reach window coverings to operate the product.

*Response 5:* Although some users have challenges reaching products at a height, CPSC staff advises that various tools are currently marketed for hard-to-

reach locations, such as skylights. Section II.C of this preamble and Tab I of Staff's NPR Briefing Package provide examples of these tools. Currently available tools and devices can be used to reach custom window coverings, and for stock window coverings such tools are already being used for this purpose. Some consumers are likely to choose window coverings operated via remote control.

#### F. Parental Responsibility

*Comment 6:* At least 27 commenters suggested that parents are responsible for supervising their children around corded window coverings to prevent injuries.

*Response 6:* Strangulation by window covering cords requires only a few minutes to occur, and it happens silently. As explained in section II.C of this preamble and in Tab I of Staff's NPR Briefing Package, parental supervision is unlikely to be effective at eliminating or reducing the strangulation hazard, because even young children are left unsupervised for a few minutes or more in a room that is considered safe, such as bedroom or family room. A more effective solution to the window covering cord hazard is to ensure that window coverings do not have hazardous cords.

#### G. Rental Leases and Real Estate Documents

*Comment 7:* At least 30 commenters suggested some means of informing or addressing the corded window covering hazard in rental units. Some commenters suggested disclosing the hazards associated with corded window coverings to inform renters. Other commenters suggested that rental units should replace existing corded window coverings with newer and safer window coverings. Some commenters were concerned that tenants may not have the option to replace corded window coverings. At least 34 commenters suggested requiring the disclosure of the presence of corded window coverings in real estate documents.

*Response 7:* The Commission shares the commenters' concerns regarding window coverings included in rental units where tenants with young children may not have the option of choosing safer window coverings. Moreover, the real estate sales process is an obvious opportunity to inform buyers about the dangers associated with corded window coverings, or to remove and replace the hazardous corded window coverings. However, CPSC does not have jurisdiction to regulate rental homes or real estate sales. Rather, the Commission regulates consumer

products, wherever consumers may use such products (homes, schools, in recreation, or otherwise). State and local authorities likely have the authority to regulate what types of defects must be disclosed in real estate documents and in rental home transactions, and some states already have regulations in place to address window covering cords in certain settings, such as daycare centers.

#### H. Cost of Safer Products

*Comment 8:* At least 35 commenters stated that safer window coverings might be too expensive for some consumers, because regulations will increase the cost of window coverings, and motorized window coverings cost much more than corded products. At least 108 commenters suggested that safe alternatives to corded window coverings currently exist but are unaffordable. At least 71 commenters stated that the price of cordless window coverings will drop due to regulation and competition.

*Response 8:* Safer stock window coverings that comply with ANSI/WCMA-2018 are currently widely available for sale in the United States. Based on a review of currently available window covering products completed by D+R International, nearly all available stock window coverings in 2021 are cordless. Based on the D+R International (2020) study, sales of stock window coverings have remained consistent.

Corded products are now only available for custom window coverings. Custom window coverings have typically been more expensive than stock window covering counterparts because consumers can special order sizes, colors, and shapes. As described in the preliminary regulatory analysis, section V and in Staff's NPR Briefing Package, if this rule is finalized, retail prices for custom products are expected to increase by an average of at least 4 percent, price increase will vary based on product type. Any custom window covering that cannot meet the requirement in the rule for an inaccessible or short operating cord must stop offering the product, incorporate a cordless lift system, or use a motorized lift system.

Based on a review of currently available custom products, motorized lift systems may be prohibitively expensive for many consumers and can exceed the cost of the window covering in some circumstances. If a motorized custom window covering is prohibitively expensive, consumers will likely substitute the window covering for another type (*i.e.*, using curtains instead of Roman shades), purchase a

less expensive stock window covering (which already complies with ANSI/WCMA-2018), or purchase a cordless custom window covering with manual operation. If operating cords on custom window coverings must comply with the proposed rule, consumers will still have affordable window covering options.

#### I. Incentives for Manufacturers

*Comment 9:* One commenter suggested that CPSC incentivize manufacturers to design safer, durable, solutions for window coverings through grants and awards. Another commenter suggested that individuals and small companies need to be incentivized to create new products and systems without the need for high-cost research.

*Response 9:* CPSC does not currently have the resources to offer grants, subsidies, or awards to firms for development of safer window covering products.

#### J. Detailed Cost-Benefit Analysis

*Comment 10:* At least three commenters suggested that CPSC must prepare a detailed cost and benefit analysis.

*Response 10:* CPSC staff developed a preliminary regulatory analysis, as required by the CPSA, with a preliminary description of the potential benefits and potential costs of the proposed rule, including any benefits or costs that cannot be quantified in monetary terms, and an identification of those likely to receive the benefits and bear the costs. Section V of this preamble and Tab K of Staff's NPR Briefing Package contain this preliminary regulatory analysis.

#### K. Small Versus Large Businesses

*Comment 11:* One commenter stated that larger corporations that manufacturer "hard" window coverings would have an unfair advantage over smaller manufacturers of "soft" window coverings if the CPSC issues a mandatory regulation for window coverings, because hard window coverings could more easily comply with a mandatory rule.

*Response 11:* Stock window coverings that comply with ANSI/WCMA-2018 are available in both soft and hard types, and implementation of safer window covering technologies has been proven for both types of window coverings. As stated in the Initial Regulatory Flexibility Analysis for custom window coverings, section VI of this preamble and Tab J of Staff's NPR Briefing Package, CPSC expects significant cost impacts on small manufacturers of custom products, but these costs are not

limited to small manufacturers of certain window covering types. The cost impacts of a rule on operating cords for custom window coverings vary by product type. However, CPSC expects that small manufacturers of all custom window covering product types will have significant cost impacts (*i.e.*, those that exceed 1 percent of annual revenue) associated with the mandatory rule.

#### L. Product Options

*Comment 12:* At least 40 commenters suggested that consumers may want to have different options to serve their different window covering needs, and that reducing options that are available to consumers is not preferable.

*Response 12:* Stock products currently on the market that comply with ANSI/WCMA–2018 are available in a variety of materials, sizes, and types to meet consumer needs. Based on the currently available window covering operating systems, the only product type that is unlikely to keep the traditional design and still meet the proposed rule would be roll-up style shades, as they are lifted and lowered using lifting loops that are accessible and hazardous. The window covering industry is innovative; roll-up shades could be replaced with a window covering option that meets the same purpose and is safe.

#### M. Product Reliability

*Comment 13:* One commenter suggested that motors are not as reliable as cords on window coverings, because motors are more complex and require electricity. Two commenters suggested that cordless window coverings do not last long compared to corded versions.

*Response 13:* Cordless or motorized cordless window coverings are not the only option for a safer window covering that complies with the operating cord requirements in section 4.3.1 of ANSI/WCMA–2018. Corded window covering options are available and comply with section 4.3.1 of the ANSI standard if accessible cords are 8 inches or shorter

or if the cords are made inaccessible using a rigid cord shroud. WCMA stated in their response to the ANPR that the expected product life for a window covering is 10 years for a custom-made window covering and 3–5 years for a stock window covering. CPSC does not have information on product life averages for each safer window covering technology.

#### N. Incidents/Risk

*Comment 14:* Several commenters suggested that children die from interacting with household products other than window covering cords, and some commenters suggested that the risk of strangulation on window covering cords is low.

*Response 14:* The Commission is well-aware that children are injured and die from interacting with other household products. CPSC reviews injury and death reports daily, has a database of these incidents, studies the incidents, and responds to the identified hazards, because our statutory mission is to protect consumers from the risk of injury associated with consumer products. The fact that other products also are associated with injuries and death does not diminish the seriousness of each hazard, and CPSC tries to use our authorities to address injuries on all hazards associated with consumer products. The strangulation hazard to young children on window covering cords is serious, with most incidents resulting in death. The strangulation hazard is a “hidden hazard,” because many people do not understand or appreciate the hazard, and do not take appropriate steps to prevent death and injury. As reviewed in section II.C and Tab I of Staff’s NPR Briefing Package, other means of addressing deaths and injuries, such as warning labels, parental supervision, and education campaigns, have not been effective at reducing deaths and injuries, and are unlikely to be effective in the future.

However, performance requirements for window covering cords will effectively reduce the risk of death and injury to young children on window covering cords.

#### O. Stories of Loss

*Comment 15:* Over 500 commenters either were personally affected by a window covering cord injury or death or knew someone who was affected by a death.

*Response 15:* The Commission appreciates the courage of these consumers in sharing their stories. To each of these parents, family members, and loved ones, we thank you for sharing these stories and we are deeply sorry for your loss. The Commission has taken the information about the interactions and conditions involved in the incidents into consideration in developing proposed rules for stock and custom window coverings.

### IV. Description of the Proposed Rule

Section 4.3.1 of ANSI/WCMA–2018 sets forth the performance requirements for operating cords on stock window coverings (*see* Table 7). The Commission has determined that these operating cord performance requirements are adequate and effective to reduce or eliminate the unreasonable risk of strangulation to children 8 years old or younger on window covering cords (*see* section II.A of this preamble). The Commission has further determined that the requirements for operating cords on custom window coverings in section 4.3.2 of ANSI/WCMA–2018 are inadequate to address the risk of strangulation. Accordingly, the Commission proposes to require that operating cords on custom window coverings comply with the same performance requirements for operating cords on stock window coverings in section 4.3.1, instead of the requirements in section 4.3.2, of ANSI/WCMA–2018.

TABLE 7—REQUIREMENTS FOR OPERATING CORDS ON STOCK WINDOW COVERINGS IN ANSI/WCMA–2018

Stock window coverings section of the standard	Explanation
A. Operating cord:	
4.3.1.1 Cordless Operating System, “The product shall have no operating cords”.	(a) Operating cord not present or
4.3.1.2 Short Static or Access Cords, “The product shall have a Short Cord”.	(b) Operating cord is 8 inches or shorter in any use position or
4.3.1.3 Inaccessible Operating Cords, “The operating cords shall be inaccessible as determined per the test requirements in Appendix C: Test Procedure for Accessible Cords”.	(c) Operating cord is inaccessible when tested using cord shroud accessibility probe.



### A. Description of Proposed Section 1260.1—Scope and Definitions

Proposed section 1260.1, scope and definitions, describes the scope of the proposed rule and provides relevant definitions. The Commission's intent is to remain consistent with the ANSI standard for window coverings with regard to definitions, and the requirements for operating cords in section 4.3.1 of ANSI/WCMA–2018. Section 1260.1(a) limits the scope of the proposed rule to operating cords on custom window coverings. The risk of injury associated with inner cords on custom window coverings, and operating and inner cords on stock window coverings, are addressed in a separate proposed rule under section 15(j) of the CPSA. Section 1260.1(b) incorporates by reference several definitions in section 3 of ANSI/WCMA–2018. Below we set forth the terms and explain how these terms are defined in the ANSI standard.

- “custom window covering,” definition 5.01 of ANSI/WCMA–2018, is a window covering that is not a stock window covering.

- “stock window covering” definition 5.02 of ANSI/WCMA–2018, is a product that is a completely or substantially fabricated product prior to being distributed in commerce and is a stock-keeping unit (SKU). For example, even when the seller, manufacturer, or distributor modifies a pre-assembled product by adjusting to size, attaching the top rail or bottom rail, or tying cords to secure the bottom rail, the product is still considered stock under the ANSI standard. Online sales of the product or the size of the order, such as multi-family housing, do not make the product a non-stock product. These examples are provided in ANSI/WCMA A100.1–2018 to clarify that as long as the product is “substantially fabricated,” subsequent changes to the product do not change its categorization.

- “operating cord,” definition 2.19 of ANSI/WCMA–2018, is a cord that the user manipulates to use the window covering, such as lifting, lowering, tilting, rotating, and traversing. An example operating cord is pictured in Figure 8 of this preamble.

- “cord shroud,” definition 2.09 of ANSI/WCMA–2018, is material that is added around a cord to prevent a child from accessing the cord and to prevent the cord from creating a loop. Defining a cord shroud in the proposed rule is necessary because the Commission is proposing to include a test for a “rigid cord shroud” in 1260.2(b), to meet the

inaccessibility requirement in section 4.3.1.3.

The Commission is adding a definition for “rigid cord shroud” in proposed 1260.1(c) based on work by the voluntary standards task group in 2018. A “rigid cord shroud” is not currently defined in the standard but is a hard material that encases an operating cord to prevent a child from accessing an operating cord.

### B. Explanation of Proposed 1260.2—Requirements for Operating Cords on Custom Window Coverings

Proposed section 1260.2 sets forth the requirements for operating cords on custom window coverings. Section 1260.2(a) would require that each operating cord on a custom window covering comply with section 4.3.1 of ANSI/WCMA–2018 (operating cord not present (section 4.3.1.1)); operating cord is inaccessible (section 4.3.1.3); or operating cord is eight inches long or shorter in any position of the window covering (section 4.3.1.2), instead of the current requirements for operating cords on custom products in section 4.3.2 of ANSI/WCMA–2018.

Section 1260.2(b) contains a proposed requirement for rigid cord shrouds, when they are used to comply with section 1260.2(a), to make an operating cord inaccessible. Proposed sections 1260.2(c) and (d) contain the test methods to confirm whether a cord shroud is “rigid.” The requirements for rigid cord shrouds are not currently in the ANSI/WCMA standard. An ANSI/WCMA task group worked on a test method in 2018 to clarify “rigid” by confirming that a cord shroud is rigid enough to ensure that the shroud cannot be wrapped around a child's neck or won't form a u-shape as a result of attaching the free end of the shroud to the wall (similar to hazards associated with a single cord). ANSI/WCMA has never balloted these provisions.

For this proposed rule, CPSC staff developed a similar test method based on the ANSI task group work. The proposed rigid cord shroud requirements include two tests, the “Center Load” test and the “Axial Torque” test. The Center Load test verifies the stiffness of the cord shroud, by measuring the amount of deflection in the shroud when both ends are mounted and a 5-pound force is applied at the mid-point. This test ensures the shroud is not flexible enough to wrap around a child's neck. The Axial Torque test verifies the cord shroud's opening does not enlarge to create an accessible cord opening when the shroud is twisted.

CPSC is not aware of incidents related to current products with rigid cord shrouds and concludes that shrouds that meet the proposed modifications to the ANSI/WCMA standard will address the strangulation hazard posed by accessible cords. Section II.A of this preamble and Tabs G and H of Staff's NPR Briefing Package contain further explanation and the proposed language related to cord shrouds.

### C. Explanation of Proposed 1260.3—Prohibited Stockpiling

The purpose of proposed 1260.3 is to prohibit manufacturers and importers from stockpiling products that will be subject to a mandatory rule, in an attempt to circumvent the final rule. The Commission's authority to issue an anti-stockpiling provision is in section 9(g)(2) of the CPSA, 15 U.S.C. 2058(g)(2). Proposed 1260.3(a) prohibits manufacturers and importers of custom window coverings from manufacturing or importing custom window coverings that do not comply with the requirements of the proposed rule in any 12-month period between the date of the final rule publishing the in the **Federal Register** and the effective date of the rule, at a rate that is greater than 120 percent of the rate at which they manufactured or imported custom window coverings during the *base period* for the manufacturer.

The *base period* is set forth in proposed 1260.3(b) and is described as any period of 365 consecutive days, chosen by the manufacturer or importer, in the 5-year period immediately preceding promulgation of the final rule. “Promulgation” means the date the final rule is published in the **Federal Register**.

The proposed stockpiling limit is intended to allow manufacturers and importers sufficient flexibility to meet normal levels and fluctuations in demand for custom window coverings, while limiting the ability to stockpile large quantities that do not comply with the rule for sale after the effective date. Thus, the stockpiling limit would allow manufacturers and the industry to meet any foreseeable increase in the demand for custom window coverings, without allowing large quantities of custom window coverings to be stockpiled.

Custom products are typically made to order, so it is unlikely that a firm would manufacture large quantities in advance of demand. Therefore, this anti-stockpiling provision should not adversely impact manufacturers. However, firms will need to modify their window coverings to comply with the proposed requirements, and the modifications may be costly.

Accordingly, CPSC believes it is appropriate to prevent stockpiling of noncompliant custom window coverings.

#### *D. Explanation of Proposed 1260.4—Findings*

The findings required by section 9 of the CPSA are discussed in section XIII of this preamble.

#### *E. Explanation of Proposed 1260.5—Standards Incorporated by Reference*

Proposed § 1260.5 contains the information required by the Office of the Federal Register (OFR) to incorporate by reference the requirements in section 4.3.1, and the relevant definitions in section 3, of ANSI/WCMA–2018. As set forth in section XII of this preamble, the Commission has met the OFR's procedural requirements to incorporate by reference the relevant parts of ANSI/WCMA–2018.

### **V. Preliminary Regulatory Analysis**

A proposed consumer product safety rule published in the **Federal Register** in accordance with the requirements of section 9 of the CPSA must include a preliminary regulatory analysis that contains: A preliminary description of the potential benefits and potential costs of the proposed rule; a discussion of the reasons any standard or portion of a standard submitted to the Commission under subsection (a)(5) was not published by the Commission as the proposed rule or part of the proposed rule; a discussion of the reasons for the Commission's preliminary determination that efforts proposed under subsection (a)(6) and assisted by the Commission as required by section 5(a)(3) [15 U.S.C. 2054 (a)(3)] would not, within a reasonable period of time, be likely to result in the development of a voluntary consumer product safety standard that would eliminate or adequately reduce the risk of injury addressed by the proposed rule; and a description of any reasonable alternatives to the proposed rule, together with a summary description of their potential costs and benefits, and a brief explanation of why such alternatives should not be published as a proposed rule. The information and analysis in this section is based on Tab K of Staff's NPR Briefing Package.

#### *A. Preliminary Discussion of Potential Benefits and Costs of the Rule*

Based on the estimated 9 fatal injuries involving corded window coverings per year, the societal costs of these fatal injuries are about \$82.8 million annually. Based on the estimate of about 185 nonfatal window covering injuries

annually from CPSC's Injury Cost Model (ICM), staff estimates that the societal costs of nonfatal window covering injuries are approximately \$9.3 million annually. Overall, staff estimates the societal costs of fatal and nonfatal injuries to be about \$92.1 million annually. Because staff assesses that the voluntary standard adequately addresses the risk of injury associated with stock window coverings, and because operating and inner cord hazards on stock window coverings, and inner cord hazards on custom window coverings, are the subject of a separate proposed rule under section 15(j) of the CPSA, this proposed rule under sections 7 and 9 of the CPSA would only address the injuries attributable to operating cords on custom window coverings. Staff estimates the proportion of injuries attributable to operating cords on custom products to be approximately \$53.9 million annually, based on a CPSC review of reported incidents.

The present value of societal cost per window covering unit ranged from \$0.92 for cellular, pleated, and roller shades, \$1.57 for Roman shades, \$3.61 for wood and faux wood horizontal blinds, \$1.34 for metal/vinyl horizontal blinds, \$7.56 for vertical blinds, and \$0.14 for curtains/drapes. Combining these estimates with one year of corded custom window covering sales (2019) amounts to a gross annual benefit of \$52.3 million. Adjusting this estimate for the expected effectiveness of the proposed rule, because not all incidents associated with custom window coverings involved operating cords, equates to a total annual benefit of approximately \$49.5 million.

Based on component cost estimates, assembly/manufacturing costs, and proportions of domestic manufacturing, the increased cost per corded custom window covering produced would range from \$2.15 to \$34.57, an average of at least 4 percent of the retail price, and is highly dependent on product type. The proposed rule is not expected to result in any cost increases for cordless custom window coverings, and as such, aggregate costs are calculated on only corded custom products. Aggregate cost estimates range between \$156.5 million to \$309 million based on 2019 custom sales estimate of \$61.58 million with a per unit cost increase, and the percentage of corded custom sales, which are estimated as 65 percent of custom window covering unit sales.

Many sources of uncertainty are inherent in a complex cost-benefit analysis because of using estimated parameters, inputs from several models, assumptions based on expert judgement, and public/private data. This analysis

includes uncertainty related to cost estimate calculations, the value of statistical life, the number of corded window coverings in use, and the expected product life for certain blind types. The cost studies from which staff derived all of the cost estimates could be outdated, given the first study was completed in 2016, about 2 years before WCMA revised the voluntary standard for stock products. Economies of scale could have reduced costs related to cordless components since the completion of the first cost study in 2016.<sup>33</sup> For example, prices for custom window coverings are, on average, higher than those for stock products, which are already required to comply with section 4.3.1 of ANSI/WCMA–2018. Although prices of stock window coverings have increased since the revised voluntary standard went into effect in 2018, sales of stock products remain consistent.<sup>34</sup> For custom products that already have higher prices, consumers may be willing to pay more for a safer window covering without affecting sales, similar to stock window coverings.

Another example of uncertainty in the analysis is related to the value of statistical life (VSL). Staff valued the benefit of reducing fatal incidents at \$9.2 million each, which, as discussed in Tab K of Staff's NPR Briefing Package, is in-line with most reasonable estimates of the value of a statistical life. Staff noted though that there has been some discussion in the literature suggesting that people might be willing to spend more for a small reduction in the risk to children than they are for the same reduction in their own risk. A review of the literature conducted for the CPSC suggested that the VSL for

<sup>33</sup> Staff notes, though, that the low-end cost could also be an underestimate for a rule involving custom products, because the cost study, from which the estimate is derived, mostly analyzed stock products with an assumed high-volume production in China, which is less applicable for custom than for stock.

<sup>34</sup> Staff does not have information on detailed sales data to determine the impact of the ANSI/WCMA–2018 on stock products. CPSC contractor (D+R) aimed to identify the share of custom versus stock sales over time to understand how the window covering market has changed in response to the ANSI/WCMA–2018 as the standard primarily impacts stock products. Researchers considered that metal/vinyl blinds, roller shades, vertical blinds, and wood/faux wood blinds are the categories that should be most affected by the standard, given their large share in stock product sales. They assumed that if these categories had an increase in custom sales after 2018, it would indicate that the cordless operation could be one of the factors driving consumers towards purchasing custom products with corded operation, despite the higher price points. However, researchers' projections indicate that there is not a consistent trend towards greater custom sales, and in the case of metal/vinyl blinds, there is an increasing share of stock sales over time.

children could exceed that of adults by a factor of 1.2 to 3, with a midpoint of around 2 (IEc, 2018). If we increase the VSL by a factor of 3, the estimated VSL would equate to \$27.6 million per life, increasing the total benefits of the rule to an estimated \$136.9 million annually. See Table 11 in Tab K of Staff's NPR Briefing Package.

Additionally, the assumption used to create the estimate of corded products in the market is based on interviews with manufacturers and retailers, some of whom gave conflicting accounts. The estimate is not based on exposure surveys, and thus, the actual number of corded custom products could be higher or lower than the estimate used in the base analysis; and, we have no basis for stating whether we think we have over or underestimated the number.

Lastly, the estimated product life used in the analysis for vinyl and metal horizontal blinds was significantly shorter than for the other products. This estimate was based on work completed by D+R for the Department of Energy (2013). However, it is possible that this estimate is skewed because of the dominance of stock in this category. Custom window coverings have a longer product life. For example, WCMA stated in their response to the ANPR that the expected product life for a custom window covering is 10 years and is 3–5 years for a stock window covering. CPSC staff expects a higher per-unit benefit for custom products because of the longer expected product life.

#### *B. Reasons for Not Relying on a Voluntary Standard*

Given improvements in the voluntary standard for operating and inner cords on stock window coverings, and inner cords on custom window coverings, the Commission considered whether the agency could rely on the current voluntary standard, ANSI/WCMA–2018, instead of issuing a mandatory rule for operating cords on custom window coverings. However, as reviewed in section II of this preamble, staff assessed that operating cord requirements for custom products in ANSI/WCMA–2018 are inadequate to effectively address an unreasonable risk of strangulation to children 8 years old and younger associated with custom window coverings. Requirements in the voluntary standard still allow operating cords on custom window coverings to be accessible and to be longer than 8 inches.

Moreover, the Commission finds it unlikely that the ANSI/WCMA standard will be modified to address the risk of injury associated with operating cords on custom window coverings in the

near term, or in the long term. CPSC's previous efforts to work with ANSI/WCMA for an effective standard for stock window coverings required more than two decades of development by WCMA. In addition, WCMA did not agree with recommendations from other stakeholders, including consumer advocates and CPSC staff, to require the stock product requirements for custom window coverings. WCMA resists safer custom window coverings, even though cord requirements to remove the strangulation hazard (cordless, inaccessible cords, or short cords) are well known by CPSC and the industry and the technologies to achieve this have been developed and are being used to manufacture both stock and custom window coverings. Therefore, based on WCMA's position on operating cords on custom products, and on past experience, the Commission finds it unlikely that an effective voluntary standard addressing the operating cord hazards on custom window coverings will be developed within a reasonable period.

#### *C. Alternatives to the Proposed Rule*

The Commission considered several alternatives to issuing a mandatory standard for operating cords on custom window coverings. These alternatives included: (1) Not issuing a mandatory rule, but instead relying upon voluntary standards; (2) improving the voluntary standard ANSI/WCMA–2018; (3) using a later effective date; (4) narrowing the scope of the rule to address only vertical blinds and curtains and drapes; and (5) continuing and improving information and education campaigns.

##### *1. No Mandatory Standard; Rely on Voluntary Standard*

If CPSC did not issue a mandatory standard, the Commission believes that most manufacturers would comply with ANSI/WCMA–2018, because manufacturers already substantially comply with the voluntary standard. However, ANSI/WCMA–2018 allows custom window coverings to be produced with hazardous operating cords, and CPSC concludes that the requirements for operating cords associated with custom window coverings in ANSI/WCMA–2018 are inadequate to protect children from the risk of strangulation. Not mandating a standard would not impose any additional costs on manufacturers; neither would it result in any additional benefits in terms of reduced deaths and injuries to children. CPSC staff does not recommend that the Commission pursue this option.

##### *2. Improve Voluntary Standard for Window Coverings*

The Commission also considered directing CPSC staff to continue participating in voluntary standards development and encouraging safety improvements to the voluntary standard for window coverings, ANSI/WCMA–2018. This option would be similar to the “no action alternative,” with the key difference being that the Commission could direct staff to pursue safety improvements in the voluntary standard, including applying the requirements for operating cords on stock window coverings to custom window coverings, as a conditional alternative to a mandatory standard. The Commission could then reconsider a mandatory standard if efforts to improve the voluntary standard for custom products remain unsatisfactory.

Although CPSC staff supports recent changes in the voluntary standard creating requirements for cordless/short cords/inaccessible cords on stock products, more descriptive warning labels, and materials describing the strangulation hazard, staff does not recommend that the Commission pursue this option. In the past, WCMA rejected initiatives for operating cords on custom products to be cordless, or to not have accessible cords longer than 8 inches in length. Based on staff's previous experience with WCMA, and the length of time it took for WCMA to update the voluntary standard to require cordless stock products (22 years), the Commission does not believe that WCMA is likely to improve the voluntary standard for custom products in a timely manner.

##### *3. Later Effective Date*

The proposed rule includes an effective date that is 180 days after the final rule is published in the **Federal Register**. Because some manufacturers may need to redesign certain custom window coverings of unusual sizes to accommodate a cordless operation, a later effective date would allow manufacturers more time to redesign and spread the research and development costs or eliminate product variants that cannot be switched to cordless operation. Based on staff's analysis, the Commission believes it is unlikely that any manufacturer (large or small) would leave the window covering market as a result of the proposed rule. Nevertheless, elimination of some product sizes is possible because conversion to cordless operation may not be feasible for some large or unusual sizes.

Providing a later effective date for the custom window covering rule would mitigate some of the costs related to redesign/research and development for manufacturers. However, if cordless operation is not feasible, a reduction in sales would occur if a consumer could not find a suitable alternative. Given the potential for large costs for some products to conform per unit to the proposed rule, delaying the effective date would be expected to reduce costs.

#### 4. Narrow Proposed Rule to Vertical Blinds, Curtains, and Drapes

The Commission could narrow the proposed rule to address only the hazards associated with operating cords on custom vertical blinds, curtains, and drapes, on the grounds that cords are not critical to the operation of these products. These custom products typically offer cordless options at no additional cost because, for most applications, a plastic rod can be used for operation. Narrowing the proposed rule to these three product types would lessen the cost impact and make it unlikely that any particular product type and/or size would be eliminated. Under this alternative, the costs are expected to be near \$0 because using plastic rods for operation is very similar to cords in cost.

However, only 2 of the 35 custom product incidents (both are fatalities) were associated with vertical blinds, and there were no curtain or drape incidents where the stock/custom classification could be determined. Because of the limited presence of vertical blinds in custom product incidents (5.7 percent), this option is unlikely to be effective in reducing injuries and deaths.

#### 5. Continue and Improve Information and Education Campaign

The Commission could work to improve the current information and education campaign concerning the strangulation hazard associated with custom corded window covering products. Information and education campaigns on corded window coverings that have been continuing for decades have had limited effectiveness in the reduction of injuries and deaths. Accordingly, the Commission will not rely solely on education campaigns to address the risk of injury.

### VI. Initial Regulatory Flexibility Act Analysis<sup>35</sup>

Whenever an agency publishes a proposed rule, the Regulatory Flexibility

Act (5 U.S.C. 601–612) requires that the agency prepare an initial regulatory flexibility analysis (IRFA) that describes the impact that the rule would have on small businesses and other entities, unless the agency has a factual basis for certifying that the proposed rule “will not have a significant economic impact on a substantial number of small entities.”<sup>36</sup> The IRFA must contain—

(1) a description of why action by the agency is being considered;

(2) a succinct statement of the objectives of, and legal basis for, the proposed rule;

(3) a description of and, where feasible, an estimate of the number of small entities to which the proposed rule will apply;

(4) a description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for preparation of the report or record; and

(5) an identification to the extent practicable, of all relevant Federal rules which may duplicate, overlap or conflict with the proposed rule.

An IRFA must also contain a description of any significant alternatives that would accomplish the stated objectives of the applicable statutes and which would minimize any significant economic impact of the proposed rule on small entities.

#### A. Reason for Agency Action

The proposed rule is intended to address the strangulation hazard to children 8 years and younger associated with operating cords on custom window coverings. Based on an analysis of the relevant data, as set forth in section I.E of this preamble and Tab A of Staff’s NPR Briefing Package, staff reports an average of 9 fatal injuries annually to children less than 5 years old. Staff estimates the societal costs of these fatal injuries to be about \$82.8 million annually. Based on the estimate of about 185 nonfatal window covering injuries annually from CPSC’s Injury Cost Model (ICM), staff estimates the societal costs of nonfatal window covering injuries are approximately \$9.3 million. Combining these estimates amounts to annual societal costs associated with corded window coverings of approximately \$92.1 million. The proposed rule only addresses injuries attributable to custom window coverings. Based on a CPSC review of 194 reported incidents, the

proportion of injuries attributable to custom window coverings is approximately \$53.9 million annually.

The NPR proposes that operating cords on custom window coverings be subject to the same requirements in section 4.3.1 ANSI/WCMA–2018 that currently apply to operating cords on stock window coverings. Based on staff’s expertise and analysis of window covering cord incidents, the Commission has determined that these requirements are effective at preventing strangulations for operating cords on stock window coverings and would be equally effective when applied to operating cords on custom window coverings.

#### B. Objectives of and Legal Basis for the Rule

The objective of the rule is to reduce or eliminate an unreasonable risk of injury or death to children 8 years old or younger associated with operating cords on custom window coverings. The Commission issues this proposed rule under the authority in sections 7 and 9 of the CPSA.

#### C. Small Entities to Which the Rule Will Apply

Under SBA guidelines, a manufacturer of window coverings is categorized as small if the firm has fewer than 1,000 employees, retailers are considered small if they have sales revenue less than \$8.0 million, and importers if the firm has fewer than 100 employees. Based on 2017 data, 1,898 firms were categorized as blinds and shades manufacturers and retailers (Census Bureau, 2020).<sup>37</sup> Of these, about 1,840 firms (302 manufacturers and 1,538 retailers) are small. As the NAICS code for importers is non-specific to window coverings, CPSC staff reviewed Customs and Border Patrol (CBP) data, firm financial reports, and Dun & Bradstreet reports to obtain a more precise estimate of importers. Based on this research, CPSC staff estimates that there are approximately 83 importers

<sup>37</sup> The North American Industry Classification System (NAICS) defines product codes for United States firms. Firms that manufacture window coverings may list their business under the NAICS product code for blinds and shades manufacturers (337920 Blind and Shade Manufacturing) or retailers (442291 Window Treatment Stores). The two product codes 337920 and 442291 encompass most products in the window coverings market. However, some drapery and curtain manufacturers may be listed under 322230, stationary product manufacturing. Importers of window coverings are generally listed in Home Furnishing Merchant Wholesalers (423220), which includes other home furnishing items and is non-specific to window coverings.

<sup>35</sup> The RFA analysis is based on Tab F of Staff’s NPR Briefing Package.

<sup>36</sup> 5 U.S.C. 605 (b) of The Regulatory Flexibility Act of 1980, as amended. Available at <https://www.sba.gov/advocacy/regulatory-flexibility-act>.

that meet the SBA guidelines for a small business (Laciak 2020).

Nearly all of the 302 staff-identified small manufacturers are far below the 1,000 employee SBA threshold. Two hundred thirty-eight (238) of the manufacturers have fewer than 20 employees, and 151 have fewer than 5 employees. CPSC staff estimates that the annual revenue for the firms with fewer than 20 employees to be under \$250,000. Most of the firms with fewer than 5 employees manufacture custom window coverings on a per order basis. The annual revenue for these manufacturers is most likely below \$25,000, based on estimates from the Nonemployer Statistics from the U.S. Bureau of the Census. Staff estimates that the annual revenues for the remaining small manufacturers, those with more than 20 employees, are between \$300,000 to \$2,000,000.

#### *D. Compliance Requirements of the Proposed Rule, Including Reporting and Recordkeeping Requirements*

The proposed rule would establish a performance standard for operating cords on custom window coverings, requiring that they meet the same requirements as operating cords on stock window coverings under section 4.3.1 of ANSI/WCMA–2018. To comply with the performance requirements, all accessible operating cords would need to be removed, made inaccessible, or shortened to 8 inches or less in any use position.

Under section 14 of the CPSA, as codified in 16 CFR part 1110, manufacturers and importers of custom window coverings will be required to certify (General Certificate of Conformity, or GCC), based on a test of each product or upon a reasonable testing program, that their window coverings comply with the requirements in the rule. If the custom window covering is a children's product, the window covering must be third party tested and certified (Children's Product Certificate, or CPC) for compliance with the rule. Each certificate of compliance must identify the manufacturer or importer issuing the certificate and any manufacturer, firm, or third party conformity assessment body on whose testing the certificate depends. The certificate must be legible and in English and include the date and place of manufacture, the date and place where the product was tested, including the full mailing address and telephone number for each party, and the contact information for the person responsible for maintaining records of the test results. The certificates may be in electronic format and must be provided

to each distributor or retailer of the product. Upon request, the certificates must also be provided to the CPSC and Customs and Border Protection (CBP).<sup>38</sup>

#### *E. Costs of Proposed Rule That Would Be Incurred by Small Manufacturers*

Custom window covering manufacturers would most likely adopt cordless lift operation systems to comply with the proposed rule. As discussed in section V of this preamble, and in Tab K of Staff's NPR Briefing Package, the preliminary regulatory analysis estimates the cost to modify window covering lift systems with the proposed rule ranges from \$2.95 to \$9.65 per horizontal blind, \$2.15 to \$34.57 per shade, and no expected cost increase for vertical blinds and curtains/drapes. CPSC staff does not have estimates of redesign costs but expects that these costs will be small given the already wide availability of product designs with inaccessible cords.<sup>39</sup> CPSC staff expects component costs to be significant, as inaccessible cord operation is expensive.

Estimates of the costs to modify three types of window coverings in Panchal (2016) indicate that, at a minimum, the costs to modify will range from 2 to 11 percent of retail prices. Panchal (2016) used a product archeology approach, supplemented by standard models for calculating only manufacturing and assembly costs, to estimate the incremental cost of implementing standard manual uncorded technology for entry-level stock window coverings—the type of window coverings that are available for purchase off-the-shelf from home improvement stores. Hence his estimates are most applicable to the more basic and inexpensive uncorded products at the low end of the window coverings market. Panchal's analysis does not account for any costs associated with product development and design innovations, testing, licensing of technology, manufacturing restrictions due to existing patents, and training of personnel, which would add further costs to implementing uncorded technologies. Panchal's analysis was also conducted two years before the

ANSI standard was revised to require safer operating cords on stock window coverings in December 2018.

Manufacturers would likely incur some additional costs to certify that their window coverings meet the requirements of the proposed rule as required by Section 14 of the CPSA. The certification must be based on a test of each product or a reasonable testing program. WCMA developed a certification program for window covering products, titled "Best for Kids," which includes third party testing of products for accessible cords. CPSC staff believes this testing and certification program would meet the requirements in Section 14 of the CPSA, as long as the test laboratories are CPSC-accepted. Based on quotes from testing laboratory services for consumer products, the cost of the certification testing will range from \$290 to \$540 per window covering model.<sup>40</sup> Note that the requirement to certify compliance with all product safety rules, based on a reasonable testing program, is a requirement of the CPSA and not of the proposed rule.

Based on discussion in the Commission's proposed rule on stock window covering cords (Proposed rule to Amend 16 CFR part 1120, CPSC Docket No. CPSC–2021–0038), which evaluates the requirements in section 4.3.1 of ANSI/WCMA–2018 to be "readily observable," a reasonable testing program for nonchildren's custom window coverings could entail a simple visual inspection of products by the manufacturer, and simple measurements of the length of any accessible cord. Therefore, the cost of a reasonable testing program for compliance with the proposed rule is likely much lower than the cost of conducting a third party certification testing for children's products.

#### *F. Impact on Small Manufacturers*

To comply with the proposed rule, staff expects small manufacturers to incur redesign and incremental component costs, described above, for some product lines which currently are not available with inaccessible cords. Staff does not expect small manufacturers to suffer a disproportionate cost effect from the proposed rule, because the cost calculations and research were completed on a per unit basis; staff expects little if any redesign costs. Staff expects small manufacturers of window

<sup>38</sup> The regulations governing the content, form, and availability of the certificates of compliance are codified at 16 CFR part 1110. Additional requirements for testing and certification of children's products are codified at 16 CFR part 1107.

<sup>39</sup> Based on interviews with window covering manufacturers there may be some size and placement limitations related in-accessible cord designs. These limitations can be addressed with motorization of the product but it is prohibitively expensive as many motorized systems can cost more than the window covering product itself.

<sup>40</sup> Based on quotes from firms to conduct certification tests to the current WCMA voluntary standard on window covering products currently available at retailers.

coverings to incur, at a bare minimum, a two percent impact to their custom window covering revenue from the proposed rule. This implies that if custom products account for all of a firm's revenue, then the minimum impact of the proposed rule is two percent of revenue.

Generally, staff considers an impact to be potentially significant if it exceeds 1 percent of a firm's revenue. Because even the smallest estimate of cost is 2 percent of retail price, staff believes that the proposed rule could have a significant impact on manufacturers that receive a significant portion of their revenue from the sale of custom window coverings. Staff expects small importers to bear similar costs as small manufacturers, but staff is unclear whether the impact will be significant. The cost effect as a percent of revenue is dependent on the firm's custom window covering imports as a percent of total revenue. Any small importer with revenues of at least 50 percent related to custom window coverings affected by the proposed rule could be significantly impacted. Due to these potential impacts, CPSC staff expects the proposed rule to have a significant effect on a substantial number of small firms.

#### *G. Federal Rules Which May Duplicate, Overlap, or Conflict With the Proposed Rule*

CPSC staff has not identified any other Federal rules that duplicate, overlap, or conflict with the proposed rule.

#### *H. Alternatives for Reducing the Adverse Impact on Small Entities*

Under section 603(c) of the Regulatory Flexibility Act, an initial regulatory flexibility analysis should "contain a description of any significant alternatives to the proposed rule which accomplish the stated objectives of the applicable statutes and which minimize any significant impact of the proposed rule on small entities." CPSC staff examined several alternatives to the proposed rule which could reduce the impact on small entities, as discussed in section V.C of this preamble.

### **VII. Environmental Considerations**

Generally, the Commission's regulations are considered to have little or no potential for affecting the human environment, and environmental assessments and impact statements are not usually required. See 16 CFR

1021.5(a). The proposed rule to require operating cords on custom window coverings to comply with the same requirements for operating cords on stock window coverings, as set forth in section 4.3.1 of ANSI/WCMA-2018, is not expected to have an adverse impact on the environment and is considered to fall within the "categorical exclusion" for the purposes of the National Environmental Policy Act. 16 CFR 1021.5(c).

### **VIII. Paperwork Reduction Act**

This proposed rule contains information collection requirements that are subject to public comment and review by the Office of Management and Budget (OMB) under the Paperwork Reduction Act of 1995 (PRA; 44 U.S.C. 3501-3521). Under the PRA, an agency must publish the following information:

- A title for the collection of information;
- a summary of the collection of information;
- a brief description of the need for the information and the proposed use of the information;
- a description of the likely respondents and proposed frequency of response to the collection of information;
- an estimate of the burden that will result from the collection of information; and
- notice that comments may be submitted to OMB.

44 U.S.C. 3507(a)(1)(D). In accordance with this requirement, the Commission provides the following information:

*Title:* Amendment to Third Party Testing of Children's Products, approved previously under OMB Control No. 3041-0159.

*Summary, Need, and Use of Information:* The proposed consumer product safety standard prescribes the safety requirements for operating cords on custom window coverings, and requires that these cords meet the same requirements for operating cords on stock window coverings, as set forth in the voluntary standard, section 4.3.1 of ANSI/WCMA-2018. These requirements are intended to reduce or eliminate an unreasonable risk of death or injury to children 8 years old and younger from strangulation.

Some custom window coverings are considered children's products. A "children's product" is a consumer product that is "designed or intended primarily for children 12 years of age or younger." 15 U.S.C. 2052(a)(2). The

Commission's regulation at 16 CFR part 1200 further interprets the term. Section 14 of the CPSA requires that children's products be tested by a third party conformity assessment body, and that the manufacturer of the product, including an importer, must issue a children's product certificate (CPC). Based on such third party testing, a manufacturer or importer must attest to compliance with the applicable consumer product safety rule by issuing the CPC. The requirement to test and certify children's products fall within the definition of "collection of information," as defined in 44 U.S.C. 3502(3).

The requirements for the CPCs are stated in Section 14 of the CPSA, and in the Commission's regulation at 16 CFR parts 1107 and 1110. Among other requirements, each certificate must identify the manufacturer or private labeler issuing the certificate and any third-party conformity assessment body, on whose testing the certificate depends, the date and place of manufacture, the date and place where the product was tested, each party's name, full mailing address, telephone number, and contact information for the individual responsible for maintaining records of test results. The certificates must be in English. The certificates must be furnished to each distributor or retailer of the product and to the CPSC, if requested.

The Commission already has an OMB control number, 3041-0159, for children's product testing and certification. This rule would amend this collection of information to add window coverings that are children's products.

*Respondents and Frequency:* Respondents include manufacturers and importers of custom window coverings that are children's products. Manufacturers and importers must comply with the information collection requirements when custom window coverings that are children's products are manufactured or imported.

*Estimated Burden:* CPSC has estimated the respondent burden in hours, and the estimated labor costs to the respondent.

*Estimate of Respondent Burden:* The hourly reporting burden imposed on firms that manufacture or import children's product custom window coverings includes the time and cost to maintain records related to third party testing, and to issue a CPC.

TABLE 8—ESTIMATED ANNUAL REPORTING BURDEN

Burden type	Total annual responses	Length of response (hours)	Annual burden (hours)
Third-party recordkeeping, certification .....	60,800	1.0	60,800

Three types of third-party testing of children's products are required: Certification testing, material change testing, and periodic testing. Requirements state that manufacturers conduct sufficient testing to ensure that they have a high degree of assurance that their children's products comply with all applicable children's product safety rules before such products are introduced into commerce. If a manufacturer conducts periodic testing, they are required to keep records that describe how the samples of periodic testing are selected.

CPSC estimates that 0.1 percent of all custom window coverings sold annually, 60,800 window coverings, are children's products and would be subject to third-party testing, for which 1.0 hours of recordkeeping and record maintenance will be required. Thus, the total hourly burden of the recordkeeping associated with certification is 60,800 hours (1.0 × 60,800).

**Labor Cost of Respondent Burden.** According to the U.S. Bureau of Labor Statistics (BLS), Employer Costs for Employee Compensation, the total compensation cost per hour worked for all private industry workers was \$36.64 (March 2021, <https://www.bls.gov/ncs/ect/>). Based on this analysis, CPSC staff estimates that labor cost of respondent burden would impose a cost to industry of approximately \$2,227,712 annually (60,800 hours × \$36.64 per hour).

**Cost to the Federal Government.** The estimated annual cost of the information collection requirements to the federal government is approximately \$4,172, which includes 60 staff hours to examine and evaluate the information as needed for Compliance activities. This is based on a GS–12, step 5 level salaried employee. The average hourly wage rate for a mid-level salaried GS–12 employee in the Washington, DC metropolitan area (effective as of January 2021) is \$47.35 (GS–12, step 5). This represents 68.1 percent of total compensation (U.S. Bureau of Labor Statistics, “Employer Costs for Employee Compensation,” March 2021, percentage of wages and salaries for all civilian management, professional, and related employees: <https://www.bls.gov/ncs/ect/>). Adding an additional 31.9 percent for benefits brings average annual compensation for a mid-level

salaried GS–12 employee to \$69.53 per hour. Assuming that approximately 60 hours will be required annually, this results in an annual cost of \$4,172 (\$69.53 per hour × 60 hours = \$4,171.80).

**Comments.** CPSC has submitted the information collection requirements of this rule to OMB for review in accordance with PRA requirements. 44 U.S.C. 3507(d). CPSC requests that interested parties submit comments regarding information collection to the Office of Information and Regulatory Affairs, OMB (see the **ADDRESSES** section at the beginning of this NPR).

Pursuant to 44 U.S.C. 3506(c)(2)(A), the Commission invites comments on:

- Whether the proposed collection of information is necessary for the proper performance of CPSC's functions, including whether the information will have practical utility;
- the accuracy of CPSC's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- ways to enhance the quality, utility, and clarity of the information the Commission proposes to collect;
- ways to reduce the burden of the collection of information on respondents, including the use of automated collection techniques, when appropriate, and other forms of information technology;
- the estimated burden hours associated with labels and hang tags, including any alternative estimates; and
- the estimated respondent cost other than burden hour cost.

## IX. Preemption

Executive Order (E.O.) 12988, *Civil Justice Reform* (Feb. 5, 1996), directs agencies to specify the preemptive effect of a rule in the regulation. 61 FR 4729 (Feb. 7, 1996). The proposed regulation for operating cords on custom window coverings is issued under authority of the CPSA. 15 U.S.C. 2051–2089. Section 26 of the CPSA provides that “whenever a consumer product safety standard under this Act is in effect and applies to a risk of injury associated with a consumer product, no State or political subdivision of a State shall have any authority either to establish or to continue in effect any provision of a safety standard or regulation which

prescribes any requirements as to the performance, composition, contents, design, finish, construction, packaging or labeling of such product which are designed to deal with the same risk of injury associated with such consumer product, unless such requirements are identical to the requirements of the Federal Standard.” 15 U.S.C. 2075(a).

The federal government, or a state or local government, may establish or continue in effect a non-identical requirement for its own use that is designed to protect against the same risk of injury as the CPSC standard if the federal, state, or local requirement provides a higher degree of protection than the CPSA requirement. *Id.* 2075(b). In addition, states or political subdivisions of a state may apply for an exemption from preemption regarding a consumer product safety standard, and the Commission may issue a rule granting the exemption if it finds that the state or local standard: (1) Provides a significantly higher degree of protection from the risk of injury or illness than the CPSA standard, and (2) does not unduly burden interstate commerce. *Id.* 2075(c).

Thus, the proposed rule for operating cords on custom window coverings would, if finalized, preempt non-identical state or local requirements for operating cords on custom window coverings designed to protect against the same risk of injury and prescribing requirements regarding the performance of operating cords on custom window coverings.

## X. Testing, Certification, and Notice of Requirements

Section 14(a) of the CPSA includes requirements for certifying that children's products and non-children's products comply with applicable mandatory standards. 15 U.S.C. 2063(a). Section 14(a)(1) addresses required certifications for non-children's products, and sections 14(a)(2) and (a)(3) address certification requirements specific to children's products.

A “children's product” is a consumer product that is “designed or intended primarily for children 12 years of age or younger.” *Id.* 2052(a)(2). The following factors are relevant when determining whether a product is a children's product:



- Manufacturer statements about the intended use of the product, including a label on the product if such statement is reasonable;

- whether the product is represented in its packaging, display, promotion, or advertising as appropriate for use by children 12 years of age or younger;

- whether the product is commonly recognized by consumers as being intended for use by a child 12 years of age or younger; and

- the Age Determination Guidelines issued by CPSC staff in September 2002, and any successor to such guidelines.

*Id.* “For use” by children 12 years and younger generally means that children will interact physically with the product based on reasonably foreseeable use. 16 CFR 1200.2(a)(2). Children’s products may be decorated or embellished with a childish theme, be sized for children, or be marketed to appeal primarily to children. *Id.* § 1200.2(d)(1).

CPSC is aware that some window coverings are specifically designed for children, and based on the factors listed above, fall within the definition of a “children’s product.” If the Commission issues a final rule for operating cords on custom window coverings, such a rule would require custom window coverings that are children’s products to meet the third-party testing and certification requirements in section 14(a) of the CPSA. The Commission’s requirements for certificates of compliance are codified at 16 CFR part 1110.

*Non-Children’s Products.* Section 14(a)(1) of the CPSA requires every manufacturer (which includes importers<sup>41</sup>) of a non-children’s product that is subject to a consumer product safety rule under the CPSA or a similar rule, ban, standard, or regulation under any other law enforced by the Commission to certify that the product complies with all applicable CPSC-enforced requirements. 15 U.S.C. 2063(a)(1).

*Children’s Products.* Section 14(a)(2) of the CPSA requires the manufacturer or private labeler of a children’s product that is subject to a children’s product safety rule to certify that, based on a third-party conformity assessment body’s testing, the product complies with the applicable children’s product safety rule. *Id.* 2063(a)(2). Section 14(a) also requires the Commission to publish a notice of requirements (NOR) for a third-party conformity assessment body (*i.e.*, testing laboratory) to obtain accreditation to assess conformity with

a children’s product safety rule. *Id.* 2063(a)(3)(A). Because some custom window coverings are children’s products, the proposed rule is a children’s product safety rule, as applied to those products. Accordingly, if the Commission issues a final rule, it must also issue an NOR.

The Commission published a final rule, codified at 16 CFR part 1112, entitled *Requirements Pertaining to Third Party Conformity Assessment Bodies*, which established requirements and criteria concerning testing laboratories. 78 FR 15836 (Mar. 12, 2013). Part 1112 includes procedures for CPSC to accept a testing laboratory’s accreditation and lists the children’s product safety rules for which CPSC has published NORs. When CPSC issues a new NOR, it must amend part 1112 to include that NOR. Accordingly, as part of this NPR for operating cords on custom window coverings, the Commission proposes to amend part 1112 to add the “Safety Standard for Operating Cords on Custom Window Coverings” to the list of children’s product safety rules for which CPSC has issued an NOR.

Testing laboratories that apply for CPSC acceptance to test custom window coverings that are children’s products for compliance with the new rule would have to meet the requirements in part 1112. When a laboratory meets the requirements of a CPSC-accepted third party conformity assessment body, the laboratory can apply to CPSC to include 16 CFR part 1260, *Safety Standard for Operating Cords on Custom Window Coverings*, in the laboratory’s scope of accreditation of CPSC safety rules listed on the CPSC website at: [www.cpsc.gov/labsearch](http://www.cpsc.gov/labsearch).

## XI. Effective Date

The Administrative Procedure Act (APA) generally requires that the effective date of a rule be at least 30 days after publication of a final rule. 5 U.S.C. 553(d). Section 9(g)(1) of the CPSA states that a consumer product safety rule shall specify the date such rule is to take effect, and that the effective date must be at least 30 days after promulgation, but cannot exceed 180 days from the date a rule is promulgated, unless the Commission finds, for good cause shown, that a later effective date is in the public interest and publishes its reasons for such finding. If finalized, the Commission proposes an effective date of 180 days after publication of the final rule in the **Federal Register**.

## XII. Incorporation by Reference

The Commission proposes to incorporate by reference certain provisions of ANSI/WCMA A100.1–2018, American National Standard for Safety of Corded Window Covering Products. The Office of the Federal Register (OFR) has regulations concerning incorporation by reference. 16 CFR part 51. The OFR revised these regulations to require that, for a proposed rule, agencies must discuss in the preamble of the NPR ways that the materials the agency proposes to incorporate by reference are reasonably available to interested persons or how the agency worked to make the materials reasonably available. In addition, the preamble of the proposed rule must summarize the material. 16 CFR 51.5(a).

In accordance with the OFR’s requirements, sections I.B.2.(d), II, IV and Table 3 of this preamble summarize the provisions of ANSI/WCMA A100.1–2018 that the Commission proposes to incorporate by reference. ANSI/WCMA A100.1–2018 is copyrighted. You may view a read-only copy of ANSI/WCMA A100.1–2018 free of charge at: [https://wcmanet.com/wp-content/uploads/2021/07/WCMA-A100-2018\\_v2\\_websitePDF.pdf](https://wcmanet.com/wp-content/uploads/2021/07/WCMA-A100-2018_v2_websitePDF.pdf). Alternatively, interested parties may inspect a copy of the standard free of charge by contacting Alberta E. Mills, Division of the Secretariat, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone: 301–504–7479; email: [cpsc-os@cpsc.gov](mailto:cpsc-os@cpsc.gov). To download or print the standard, interested persons may purchase a copy of ANSI/WCMA A100.1–2018 from WCMA, through its website (<http://wcmanet.com>), or contacting the Window Covering Manufacturers Association, Inc., 355 Lexington Avenue, New York, New York, 10017; telephone: 212.297.2122.

## XIII. Proposed Findings

The CPSA requires the Commission to make certain findings when issuing a consumer product safety standard. Specifically, the CPSA requires the Commission to consider and make findings about the following:

- The degree and nature of the risk of injury the rule is designed to eliminate or reduce;
- the approximate number of consumer products subject to the rule;
- the need of the public for the products subject to the rule and the probable effect the rule will have on the cost, availability, and utility of such products;
- any means to achieve the objective of the rule while minimizing adverse

<sup>41</sup> The CPSA defines a “manufacturer” as “any person who manufactures or imports a consumer product.” 15 U.S.C. 2052(a)(11).

effects on competition, manufacturing, and commercial practices;

- that the rule, including the effective date, is reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with the product;

- that issuing the rule is in the public interest;

- if a voluntary standard addressing the risk of injury has been adopted and implemented, that either compliance with the voluntary standard is not likely to result in the elimination or adequate reduction of the risk of injury, or it is unlikely to be substantial compliance with the voluntary standard;

- that the benefits expected from the rule bear a reasonable relationship to its costs; and

- that the rule imposes the least burdensome requirement that prevents or adequately reduces the risk of injury.

15 U.S.C. 2058(f)(1), (f)(3). At the NPR stage, the Commission is making these findings on a preliminary basis to allow the public to comment on the findings.

#### *A. Degree and Nature of the Risk of Injury*

Operating cords on custom window coverings present a strangulation hazard, including death and serious injury, to children 8 years old and younger. If children can access a window covering cord, children can wrap the cord around their neck, or insert their head into a loop formed by the cord and strangle. Strangulation can lead to serious injuries with permanent debilitating outcomes or death. If sustained lateral pressure occurs at a level resulting in vascular occlusion, strangulation can occur when a child's head or neck becomes entangled in any position, even in situations where the child's body is fully or partially supported.

Strangulation deaths and injuries on window covering cords are a "hidden hazard" because consumers do not understand or appreciate the hazard, or how quickly and silently strangulation occurs. Because even young children are left unsupervised for a few minutes or more in a room that is considered safe, such as a bedroom or family room, adult supervision is unlikely to be effective to eliminate or reduce the hazard. Children can wrap the cord around their necks, insert their heads into a cord loop and get injured, or die silently in a few minutes in any room, with or without supervision.

Additionally, safety devices such as cord cleats and tension devices are unlikely to be effective because cord cleats need to be attached on the wall and caregivers must wrap the cord

around the cleat each and every time the window covering is raised or lowered.

As incident data show, children can still access and become entangled in cords by climbing on furniture. Tension devices also need to be attached on the wall or windowsill, which may not occur due to increased "cost" of compliance and unwillingness to create holes on the wall (which may not be permitted in rental homes); depending on how taut the cord loop is, it can still allow a child's head to enter the opening as observed in the incident data.

A user research study found a lack of awareness on cord entanglement among caregivers, lack of awareness of the speed and mechanism of the injury; difficulty using and installing safety devices as primary reasons for not using them; and inability to recognize the purpose of the safety devices provided with window coverings. Warning labels are not likely to be effective because research demonstrates that consumers are less likely to look for and read safety information about the products that they use frequently and are familiar with. Most of the incident units had the permanent warning label on the product. Even well-designed warning labels will have limited effectiveness in communicating the hazard on this type of product.

Custom window covering cords have a long product life, and it may take consumers several decades to replace these products. Accordingly, every custom product sold with accessible operating cord presents a "hidden hazard" to young children and can remain a hazard in the household for 20 years. Some consumers may believe that because they either do not have young children living with them or visiting them, inaccessible operating cords on window coverings are not a safety hazard. However, window coverings last a long time, and when homes are sold or new renters move in, the existing window coverings, if they are functional, usually remain installed and could be hazardous to new occupants with young children.

On the other hand, window coverings that comply with the operating cord requirements for stock window covering requirements in section 4.3.1 of ANSI/WCMA-2018 adequately address the strangulation hazard, by not allowing hazardous cords on the product by design, and therefore do not rely on consumer action. One hundred percent of the operating cord incidents involving custom window coverings would have been prevented if the requirements in section 4.3.1 of ANSI/

WCMA-2018 were in effect and covered the incident products.

Based on reviews of CPSC databases, we found that a total of 194 reported fatal and nonfatal strangulations on window coverings occurred among children eight years and younger, from January 2009 through December 2020. Nearly 46 percent were fatal incident reports (89 of 194), while the remaining were near-miss nonfatal incidents. Sixteen of the 194 victims required hospitalization, and six survived a hypoxic-ischemic episode or were pulseless and in full cardiac arrest when found, suffered severe neurological sequelae, ranging from loss of memory to a long-term or permanent vegetative state requiring tracheotomy and gastrointestinal tube feeding. One victim who remained hospitalized for 72 days was released from the hospital with 75 percent permanent brain damage and is confined to a bed.

Based on CPSC's Injury Cost Model, we estimated that approximately 185 medically treated nonfatal injuries have occurred annually from 2009 through 2020 involving children eight years and younger. We also estimated that based on a review of National Center for Health Statistics (NCHS) and a separate study of child strangulations, a minimum of nine fatal strangulations related to window covering cords occurred per year in the United States among children under five years old from 2009–2019.

#### *B. Number of Consumer Products Subject to the Proposed Rule*

We estimate that approximately 512 million custom window coverings are in use in the United States. Only corded custom window coverings would be subject to the rule, which we estimate to be around 65 percent of custom window coverings. This brings the total number of window coverings that are subject to the rule to approximately 39 million units sold per year.

#### *C. The Public Need for Custom Window Coverings and the Effects of the Proposed Rule on Their Utility, Cost, and Availability*

Consumers commonly use window coverings in their homes to control light coming in through windows and for decoration. ANSI/WCMA-2018 segments the market between stock and custom window coverings. Stock and custom window coverings serve the same purpose, and window covering cords on stock and custom products present the same hazards to children. However, custom window coverings allow consumers to choose a wider variety of specific material, color,

operating systems, or sizes, than stock products. Because ANSI/WCMA–2018 effectively addresses operating cords on stock window coverings, and the hazards on custom products are the same, the proposed rule requires custom window coverings to meet the same performance requirements for operating cords as the current operating cord requirements for stock window coverings in ANSI/WCMA–2018.

The Commission does not expect the proposed rule to have a substantial effect on the utility or availability of custom window coverings, and the impact on cost depends on the product type. Custom window coverings that already meet the voluntary standard would continue to serve the purpose of covering windows in consumers' homes. A possible negative effect could occur with regard to the utility of custom window coverings for those consumers with accessibility issues, or window coverings in hard-to-reach locations, because consumers may need to use a tool to operate the window covering. However, this loss of utility would be mitigated by the availability of existing tools that are already available on the market, and by the ubiquity of remote-controlled operating systems.

Retail prices of custom window coverings vary substantially. The least expensive units for an average size window retail for less than \$40, while some more expensive units may retail for several thousand dollars. The lowest cost to comply with the proposed rule determine by CPSC staff was about \$2.15 per unit. This per unit cost was for potential modifications to comply with the proposed rule, in cases where CPSC staff was able to estimate the potential cost. Custom window covering prices may increase to reflect the added cost of modifying or redesigning products to comply with the proposed rule. If the costs associated with redesigning or modifying a custom window covering to comply with the standard results in the manufacturer discontinuing that model, there would be some loss in availability of that type.

Prices for custom window coverings are, on average, higher than those for stock products, which are already required to comply with section 4.3.1 of ANSI/WCMA–2018. Although prices of stock window coverings have increased since the revised voluntary standard went into effect in 2018, sales of stock products remain consistent.<sup>42</sup> For

custom products that already have higher prices, consumers may be willing to pay more for a safer window covering without affecting sales, similar to stock window coverings.

#### *D. Other Means To Achieve the Objective of the Proposed Rule, While Minimizing Adverse Effects on Competition and Manufacturing*

The Commission considered alternatives to achieving the objective of the rule of reducing unreasonable risks of injury and death associated with operating cords on custom window coverings. For example, the Commission considered relying on compliance with the voluntary standard, and education campaigns, rather than issuing a mandatory rule for operating cords on custom window coverings. Because this is the approach CPSC has relied on, to date, this alternative would have minimal costs; however, it is unlikely to further reduce the risk of injury from operating cords on custom window coverings.

Similarly, the Commission also considered narrowing the scope of the rule to address only the hazards associated with operating cords on custom vertical blinds, curtains, and drapes, because cords are not critical to the operation of these products. Narrowing the proposed rule to these three product types would lessen the cost impact and make it unlikely that any particular product type and/or size would be eliminated, and costs would be near \$0 because using plastic rods for operation is very similar to cords in cost. However, only 2 of the 35 custom product incidents (both are fatalities) were associated with vertical blinds, and there were no curtain or drape incidents where the stock/custom classification could be determined. This option would not result in an effective reduction in injuries and deaths.

Another alternative the Commission considered was providing a longer effective date. This may reduce the costs of the rule by spreading costs over a longer period, but it would also delay the benefits of the rule, in the form of reduced deaths and injuries.

to the ANSI/WCMA–2018 as the standard primarily impacts stock products. Researchers considered that metal/vinyl blinds, roller shades, vertical blinds, and wood/faux wood blinds are the categories that should be most affected by the standard, given their large share in stock product sales. They assumed that if these categories had an increase in custom sales after 2018, it would indicate that the cordless operation could be one of the factors driving consumers towards purchasing custom products with corded operation, despite the higher price points. However, researchers' projections indicate that there is not a consistent trend towards greater custom sales, and in the case of metal/vinyl blinds, there is an increasing share of stock sales over time.

#### *E. Unreasonable Risk*

Based on CPSC's Injury Cost Model, about 185 medically treated nonfatal injuries have occurred annually from 2009 through 2020, involving children eight years and younger. Based on a review of National Center for Health Statistics (NCHS) and a separate study of child strangulations, a minimum of nine fatal strangulations related to window covering cords occurred per year in the United States among children under five years old from 2009–2019. Based on reviews of CPSC databases, we found that a total of 194 reported fatal and nonfatal strangulations on window coverings occurred among children eight years and younger, from January 2009 through December 2020. Nearly 46 percent were fatal incident reports (89 of 194), while the remaining were near-miss nonfatal incidents.

The Commission estimates that the rule would result in aggregate benefits of about \$49.5 million annually. Of the potential modifications for which staff was able to estimate the potential cost, the lowest costs were about \$2.15 per unit. Effective performance requirements for operating cords on window coverings are well known and already utilized for lower-priced stock window coverings. Technologies to address hazardous window covering cords are also known and utilized on stock products. Moreover, the proposed rule is unlikely to have a large impact on the utility and availability of custom window coverings, but may have an impact on cost, depending on the design of the window covering.

The determination of whether a consumer product safety rule is reasonably necessary to reduce an unreasonable risk of injury involves balancing the degree and nature of the risk of injury addressed by the rule against the probable effect of the rule on the utility, cost, or availability of the product. The Commission does not expect the proposed rule to have a substantial effect on the utility or availability of custom window coverings. The rule may impact the cost of custom window coverings, but consumers already pay more for custom window coverings, and are likely willing to pay more for safer products.

Weighing the possibility of increased costs for custom window coverings with the continuing deaths and injuries to young children, the Commission concludes preliminarily that custom window coverings with hazardous operating cords pose an unreasonable risk of injury and death and finds that the proposed rule is reasonably

<sup>42</sup> Staff does not have information on detailed sales data to determine the impact of the ANSI/WCMA–2018 on stock products. CPSC contractor (D+R) aimed to identify the share of custom versus stock sales over time to understand how the window covering market has changed in response

necessary to reduce that unreasonable risk of injury and death.

The proposed rule would apply the same requirements to custom window coverings that already apply to stock products. The requirements to address the hazard and the available technologies are widely known and already utilized on the least expensive products. Despite this fact, custom products remain corded, and deaths and injuries to young children on window covering cords continues. As reviewed in XIII.A, consumers do not appreciate the risk of strangulation, or how quickly deaths and injuries occur, even when children are supervised, and custom products can remain in consumer's homes for decades. Due to the ongoing fatal and nonfatal incidents associated with window covering cords, high severity of the outcomes (death and disability to children), proven technical feasibility of cordless products, the implementation of stronger operating cord requirements for stock window coverings already on the market, and the ineffectiveness of warnings and safety devices for this class of products, the Commission proposes to regulate operating cords on custom window coverings.

#### F. Public Interest

This proposed rule is intended to address an unreasonable risk of injury and death posed by hazardous operating cords on custom window coverings. The Commission believes that adherence to the requirements of the proposed rule will significantly reduce or eliminate a hidden hazard, strangulation deaths and injuries to children 8 years old and younger, in the future; thus, the rule is in the public interest.

#### G. Voluntary Standards

The Commission is aware of one national voluntary standard, ANSI/WCMA–2018, and European, Australian, and Canadian standards. Among these, the Commission considers the Canadian standard to be the most stringent because it applies to all window coverings. ANSI/WCMA–2018 contains adequate performance requirements to address the risk of strangulation on for inner cords for both stock and custom window coverings and contains adequate requirements to address the risk of injury on operating cords for stock products. The Commission also believes that custom window coverings substantially comply with the voluntary standard. However, the Commission does not consider the operating cord requirements for custom window coverings in the standard adequate to address the risk of injury,

because the voluntary standard still allows accessible and hazardous operating cords to be present on custom products.

#### H. Relationship of Benefits to Costs

The aggregate benefits of the rule are estimated to be about \$49.5 million annually; and the lowest cost of the rule is estimated to be about \$156.5 million annually. Some recent studies have suggested that the VSL for children could be higher than that for adults. In other words, consumers might be willing to pay more to reduce the risk of premature death of children than to reduce the risk of premature death of adults. A review of the literature conducted for the CPSC suggested that the VSL for children could exceed that of adults by a factor of 1.2 to 3, with a midpoint of around 2 (IEC, 2018). This analysis included other uncertainties, such as cost estimate calculations, the number of corded window coverings in use, and the expected product life for certain blind types. The cost studies from which staff derived all of the cost estimates could be outdated, given the first study was completed in 2016, about 2 years before WCMA revised the voluntary standard for stock products. Economies of scale could have reduced costs related to cordless components since the completion of the first cost study in 2016. Additionally, the assumption used to create the estimate of corded products in the market is based on interviews with manufacturers and retailers, some of whom gave conflicting accounts.<sup>43</sup> Finally, the estimated product life used in the analysis for vinyl and metal horizontal blinds was significantly shorter than for the other products. This analysis was based on work completed by D+R for the Department of Energy (2013). However, this estimate may be skewed because of the dominance of stock window coverings in this category. Custom window coverings have a longer product life. For example, WCMA stated in their response to the ANPR that the expected product life for a custom window covering is 10 years and is 3–5 years for a stock window covering. CPSC staff expects a higher per-unit benefit for custom products because of the longer expected product life.

In this case, the cost of certain custom window coverings may increase if redesigned to meet the requirements in the proposed rule. However, effective

performance requirements for operating cords on window coverings are well known and already utilized for lower-priced stock window coverings. Moreover, technologies to address hazardous window covering cords are also known and utilized on stock products. Finally, consumers are likely willing to pay more for a custom window covering that eliminates the strangulation risk to children.

Based on this analysis, the Commission preliminarily finds that the benefits expected from the rule bear a reasonable relationship to the anticipated costs of the rule.

#### I. Least Burdensome Requirement That Would Adequately Reduce the Risk of Injury

The Commission considered less-burdensome alternatives to the proposed rule, detailed in section V.C of this preamble, but preliminarily concludes that none of these alternatives would adequately reduce the risk of injury.

The Commission considered relying on voluntary recalls, compliance with the voluntary standard, and education campaigns, rather than issuing a mandatory standard. These alternatives would have minimal costs but would be unlikely to reduce the risk of injury from custom window coverings that contain hazardous cords.

The Commission considered issuing a standard that applies only to a certain type of window covering such as vertical blinds. This would impose lower costs on manufacturers but is unlikely to adequately reduce the risk of injury because it would only address incidents associated with those types. Based on the custom product incident data, only 5.7 percent of the incidents involved vertical blinds and 22.7 percent involved faux wood/wood blinds.

The Commission considered providing a longer effective date for the final rule. This option may reduce the costs of the rule by spreading costs over a longer period, but it would also delay the benefits of the rule, in the form of reducing the effectiveness of the final rule during the period of delay.

#### XIV. Request for Comments

The Commission invites interested persons to submit their comments to the Commission on any aspect of the proposed rule. Additionally, the Commission seeks comment on the following topics:

A. The scope of the standard for custom window coverings, whether certain products should be included or excluded;

<sup>43</sup> For example, one small retailer CPSC staff contacted provided an account that stated demand and sales of corded products have increased in the past two years, which is in conflict with multiple accounts from manufacturers and other larger retailers.

B. Whether the ANSI/WCMA–2018 standard is adequate to address the strangulation risk associated with custom window coverings;

C. Whether the rigid cord shroud requirements are adequate;

D. Whether cord or bead chain restraining devices should be allowed for custom products that contains continuous loop operating system;

E. Whether single retractable cord lift systems should be allowed for custom products and whether maximum exposed cord length and a minimum pull force for a single retractable cord lift system can address the strangulation hazard;

F. The effect on component costs for custom products based on the requirement for stock products to comply with the voluntary standard since 2018;

G. Whether button or coin cell battery enclosures in a remote control to operate a custom window covering should be included in the rulemaking, related to the hazards of swallowing small batteries;

H. Whether to include a warning label that alerts consumers that if a hazardous cord becomes present due to broken window covering, they should remove the product from use.

I. The appropriate effective date for the final rule.

Submit comments as provided in the instructions in the **ADDRESSES** section at the beginning of this notice.

## XV. Promulgation of a Final Rule

Section 9(d)(1) of the CPSA requires the Commission to promulgate a final consumer product safety rule within 60 days of publishing a proposed rule. 15 U.S.C. 2058(d)(1). Otherwise, the Commission must withdraw the proposed rule if it determines that the rule is not reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with the product or is not in the public interest. *Id.* However, the Commission can extend the 60-day period, for good cause shown, if it publishes the reasons for doing so in the **Federal Register**. *Id.*

The Commission finds that there is good cause to extend the 60-day period for this rulemaking. Under both the Administrative Procedure Act and the CPSA, the Commission must provide an opportunity for interested parties to submit written comments on a proposed rule. 5 U.S.C. 553; 15 U.S.C. 2058(d)(2). The Commission typically provides 75 days for interested parties to submit written comments. In this case, a shorter comment period may limit the quality and utility of information CPSC receives in comments, particularly for areas where it seeks data and other detailed information that may take time for commenters to compile. Additionally,

the CPSA requires the Commission to provide interested parties with an opportunity to make oral presentations of data, views, or arguments. 15 U.S.C. 2058. This requires time for the Commission to arrange a public meeting for this purpose and provide notice to interested parties in advance of that meeting. After receiving written and oral comments, CPSC staff must have time to review and evaluate those comments.

These factors make it impractical for the Commission to issue a final rule within 60 days of this proposed rule. Moreover, issuing a final rule within 60 days of the NPR may limit commenters' ability to provide useful input on the rule, and CPSC's ability to evaluate and take that information into consideration in developing a final rule. Accordingly, the Commission finds that there is good cause to extend the 60-day period.

## List of Subjects

### 16 CFR Part 1112

Administrative practice and procedure, Audit, Consumer protection, Reporting and recordkeeping requirements, Third-party conformity assessment body.

### 16 CFR Part 1260

Consumer protection, Imports, Incorporation by reference, Administrative practice and procedure, Window Coverings, Cords, Infants and children.

For the reasons discussed in the preamble, the Commission proposes to amend subchapter B of title 16 of the Code of Federal Regulations as follows:

## PART 1112—REQUIREMENTS PERTAINING TO THIRD PARTY CONFORMITY ASSESSMENT BODIES

- 1. The authority citation for part 1112 continues to read as follows:

**Authority:** Pub. L. 110–314, section 3, 122 Stat. 3016, 3017 (2008); 15 U.S.C. 2063.

- 2. Amend § 1112.15 by adding paragraph (b)(53) to read as follows:

### § 1112.15 When can a third party conformity assessment body apply for CPSC acceptance for a particular CPSC rule or test method?

\* \* \* \* \*

(b) \* \* \*

(53) 16 CFR part 1260, Safety Standard for Operating Cords on Custom Window Coverings.

\* \* \* \* \*

- 3. Add part 1260 to read as follows:

## PART 1260—SAFETY STANDARD FOR OPERATING CORDS ON CUSTOM WINDOW COVERINGS

Sec.

1260.1 Scope and definitions.

1260.2 Requirements.

1260.3 Prohibited stockpiling.

1260.4 Findings.

1260.5 Standards Incorporated by Reference.

**Authority:** 15 U.S.C. 2056, 15 U.S.C. 2058, and 5 U.S.C. 553.

### § 1260.1 Scope and definitions.

(a) This part establishes a consumer product safety standard for operating cords on custom window coverings.

(b) This consumer product safety standard relies on the following definitions in section 3 of ANSI/WCMA A100.1—2018 (incorporated by reference, see § 1260.5):

(1) *Custom window covering* (Custom blinds, shades, and shadings) as defined in section 3, definition 5.01, of ANSI/WCMA A100.1—2018.

(2) *Stock window covering* (Stock blinds, shades, and shadings) as defined in section 3, definition 5.02, of ANSI/WCMA A100.1—2018.

(3) *Operating cord* as defined in section 3, definition 2.19, of ANSI/WCMA A100.1—2018.

(4) *Cord shroud* as defined in section 3, definition 2.09, of ANSI/WCMA A100.1—2018.

(c) *Rigid Cord Shroud* is a cord shroud that is constructed of inflexible material to prevent a child from accessing a window covering cord.

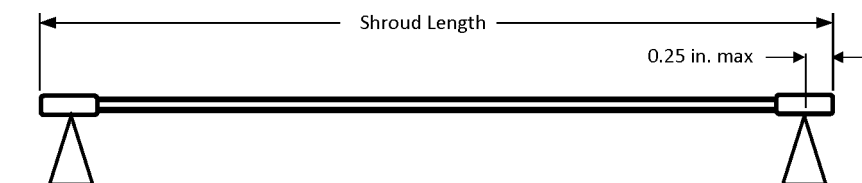
### § 1260.2 Requirements.

(a) *Requirements for operating cords.* Each operating cord on a custom window covering shall comply with section 4.3.1, instead of section 4.3.2, of ANSI/WCMA A100.1—2018 (incorporated by reference, see § 1260.5).

(b) *Requirements for rigid cord shrouds.* If a custom window covering complies with paragraph (a) of this section by using a rigid cord shroud to make an operating cord inaccessible, the rigid cord shroud shall not have an accessible cord when tested for cord accessibility using the test methods defined in paragraphs (c) and (d).

(c) *Test methods for rigid cord shrouds: Center load test.* (1) Support each end of the rigid cord shroud, but do not restrict the rotation along the axial direction. Supports must be within 0.25 inches from the ends of the shroud as shown in Figure 1.

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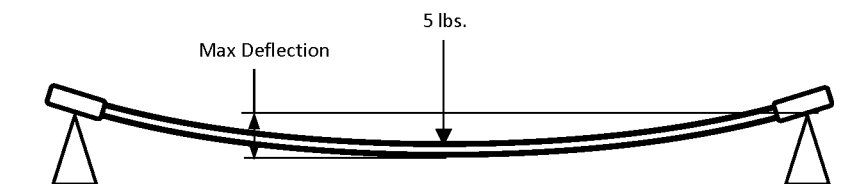
**Figure 1 to Paragraph (c)(1) – Rigid Cord Shroud Test Set-up.**

(2) Apply a 5-pound force at the center of the rigid cord shroud for at least 5 seconds as shown in Figure 2.

(3) Measure the maximum deflection of the shroud, while the 5-pound force is applied.

(4) For rigid cord shrouds that are  $\leq 19$  inches, the deflection shall not exceed

1 inch. For every additional 19 inches in shroud length, the shroud can deflect an additional inch. See Figure 2.

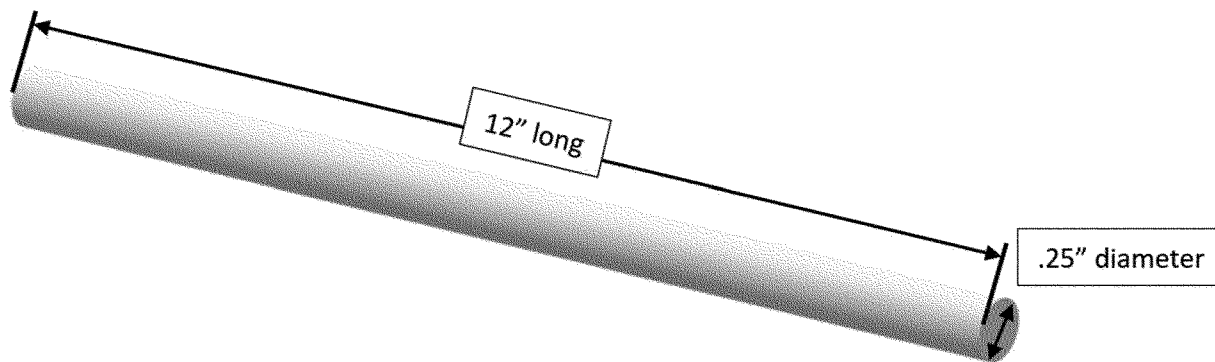


**Figure 2 to Paragraph (c)(4) – Rigid Cord Shroud Center Load Test and Deflection Measurement.**

(5) While continuing to apply the 5-pound force, determine if the cord(s) can be contacted by the cord shroud

accessibility test probe shown in Figure 3. If the cord shroud accessibility test

probe can touch any cord, the cord(s) are considered accessible.



**Figure 3 to Paragraph (c)(5) – Cord Shroud Accessibility Test Probe**

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(d) *Test methods for rigid cord shrouds: Axial torque test.* (1) Mount one end of the rigid cord shroud and restrict the rotation along the axial direction.

(2) Apply a 4.4 in-lb. (0.5Nm) torque along the other end of the rigid cord shroud for 5 seconds.

(3) While continuing to apply the torque, determine if the cord(s) can be contacted by the cord shroud accessibility test probe shown in figure 3. If the cord shroud accessibility test

probe can touch any cord, the cord(s) are considered accessible.

**§ 1260.3 Prohibited stockpiling.**

(a) *Prohibited acts.* Manufacturers and importers of custom window coverings shall not manufacture or import custom window coverings that do not comply with the requirements of this part in any 12-month period between [date of promulgation of the rule] and [effective date of the rule] at a rate that is greater than 120 percent of the rate at which they manufactured or imported custom

window coverings during the *base period* for the manufacturer.

(b) *Base period.* The base period for custom window coverings is any period of 365 consecutive dates, chosen by the manufacturer or importer, in the 5-year period immediately preceding the promulgation of the final rule.

**§ 1260.4 Findings.**

(a) *General.* Section 9(f) of the Consumer Product Safety Act (15 U.S.C. 2058(f)) requires the Commission to make findings concerning the following

topics and to include the findings in the rule.

**Note 1 to paragraph (a):** Because the findings are required to be published in the rule, they reflect the information that was available to the Consumer Product Safety Commission (Commission, CPSC) when the standard was issued on [final rule publication date].

(b) *Degree and nature of the risk of injury.* (1) Operating cords on custom window coverings present a strangulation hazard, including death and serious injury, to children 8 years old and younger. If children can access a window covering cord, children can wrap the cord around their neck, or insert their head into a loop formed by the cord and strangle. Strangulation can lead to serious injuries with permanent debilitating outcomes or death. If sustained lateral pressure occurs at a level resulting in vascular occlusion, strangulation can occur when a child's head or neck becomes entangled in any position, even in situations where the child's body is fully or partially supported.

(2) Strangulation deaths and injuries on window covering cords are a "hidden hazard" because consumers do not understand or appreciate the hazard, or how quickly and silently strangulation occurs. Because even young children are left unsupervised for a few minutes or more in a room that is considered safe, such as a bedroom or family room, parental supervision is unlikely to be effective to eliminate or reduce the hazard. Children can wrap the cord around their necks, insert their heads into a cord loop and get injured, or die silently in a few minutes in any room, with or without supervision.

(3) Additionally, safety devices, such as cord cleats and tension devices, are unlikely to be effective because cord cleats need to be attached on the wall and caregivers must wrap the cord around the cleat each and every time the window covering is raised or lowered. As incident data show, children can still access and become entangled in cords by climbing on furniture. Tension devices also need to be attached on the wall or windowsill, which may not occur due to increased "cost" of compliance and unwillingness to create holes on the wall (or may not be permitted in rental homes); depending on how taut the cord loop is, it can still allow a child's head to enter the opening as observed in the incident data.

(4) A user research study found a lack of awareness on cord entanglement among caregivers, lack of awareness of the speed and mechanism of the injury; difficulty using and installing safety

devices as primary reasons for not using them; and inability to recognize the purpose of the safety devices provided with window coverings. Warning labels are not likely to be effective because research demonstrates that consumers are less likely to look for and read safety information about the products that they use frequently and are familiar with. Most of the incident units had the permanent warning label on the product. Even well-designed warning labels will have limited effectiveness in communicating the hazard on this type of product.

(5) Custom window covering cords have a long product life, and it may take consumers several decades to replace these products. Accordingly, every custom product sold with accessible operating cord presents a "hidden hazard" to young children and can remain a hazard in the household for 20 years. Some consumers may believe that because they either do not have young children living with them or visiting them, inaccessible operating cords on window coverings is not a safety hazard. However, window coverings last a long time, and when homes are sold or new renters move in, the existing window coverings, if they are functional, usually remain installed and could be hazardous to new occupants with young children.

(6) On the other hand, window coverings that comply with the operating cord requirements for stock window covering requirements in section 4.3.1 of ANSI/WCMA-2018 adequately address the strangulation hazard, by not allowing hazardous cords on the product by design, and therefore do not rely on consumer action. One hundred percent of the operating cord incidents involving custom window coverings would have been prevented if the requirements in section 4.3.1 of ANSI/WCMA-2018 were in effect and covered the incident products.

(7) Based on reviews of CPSC databases, we found that a total of 194 reported fatal and nonfatal strangulations on window coverings occurred among children eight years and younger, from January 2009 through December 2020. Nearly 46 percent were fatal incident reports (89 of 194), while the remaining were near-miss nonfatal incidents. Sixteen of the 194 victims required hospitalization, and six survived a hypoxic-ischemic episode or were pulseless and in full cardiac arrest when found, suffered severe neurological sequelae, ranging from loss of memory to a long-term or permanent vegetative state requiring tracheotomy and gastrointestinal tube feeding. One victim who remained hospitalized for

72 days was released from the hospital with 75 percent permanent brain damage and is confined to a bed.

(8) Based on CPSC's Injury Cost Model, we estimated that approximately 185 medically treated nonfatal injuries have occurred annually from 2009 through 2020 involving children eight years and younger. We also estimated that based on a review of National Center for Health Statistics (NCHS) and a separate study of child strangulations, a minimum of nine fatal strangulations related to window covering cords occurred per year in the United States among children under five years old from 2009–2019.

(c) *Number of consumer products subject to the rule.* We estimate that approximately 512 million custom window coverings are in use in the United States. Only corded custom window coverings would be subject to the rule, which we estimate to be around 65 percent of custom window coverings. This brings the total number of window coverings that are subject to the rule to approximately 39 million units per year.

(d) *The public need for custom window coverings and the effects of the rule on their utility, cost, and availability.* (1) Consumers commonly use window coverings in their homes to control light coming in through windows and for decoration. ANSI/WCMA-2018 segments the market between stock and custom window coverings. Stock and custom window coverings serve the same purpose, and window covering cords on stock and custom products present the same hazards to children. However, custom window coverings allow consumers to choose a wider variety of specific material, color, operating systems, or sizes, than stock products. Because ANSI/WCMA-2018 effectively addresses operating cords on stock window coverings, and the hazards on custom products are the same, the rule requires custom window coverings to meet the same performance requirements for operating cords as the current operating cord requirements for stock window coverings in ANSI/WCMA-2018.

(2) [The Commission does not expect the proposed rule to have a substantial effect on the utility or availability of custom window coverings, and the impact on cost depends on the product type. Custom window coverings that already meet the voluntary standard would continue to serve the purpose of covering windows in consumers' homes. A possible negative effect could occur regarding the utility of custom window coverings for those consumers



with accessibility issues, or window coverings in hard-to-reach locations, because consumers may need to use a tool to operate the window covering. However, this loss of utility would be mitigated by the availability of existing tools that are already available on the market, and by the ubiquity of remote-controlled operating systems.]

(3) Retail prices of custom window coverings vary substantially. The least expensive units for an average size window retail for less than \$40, while some more expensive units may retail for several thousand dollars. The lowest cost to comply with the rule determined by CPSC staff was about [\$2.15 per unit]. This per unit cost was for potential modifications to comply with the rule, in cases where CPSC staff was able to estimate the potential cost. Custom window covering prices may increase to reflect the added cost of modifying or redesigning products to comply with the rule. If the costs associated with redesigning or modifying a custom window covering to comply with the standard results in the manufacturer discontinuing that model, there would be some loss in availability of that type.

(4) Prices for custom window coverings are, on average, higher than those for stock products, which are already required to comply with section 4.3.1 of ANSI/WCMA–2018. Although prices of stock window coverings have increased since the revised voluntary standard went into effect in 2018, sales of stock products remain consistent.<sup>1</sup> For custom products that already have higher prices, consumers may be willing to pay more for a safer window covering without affecting sales, similar to stock window coverings.

(e) *Other means to achieve the objective of the rule, while minimizing adverse effects on competition and manufacturing.* (1) The Commission considered alternatives to achieving the objective of the rule of reducing

unreasonable risks of injury and death associated with operating cords on custom window coverings. For example, the Commission considered relying on compliance with the voluntary standard, and education campaigns, rather than issuing a mandatory rule for operating cords on custom window coverings. Because this is the approach CPSC has relied on, to date, this alternative would have minimal costs; however, it is unlikely to further reduce the risk of injury from operating cords on custom window coverings.

(2) Similarly, the Commission also considered narrowing the scope of the rule to address only the hazards associated with operating cords on custom vertical blinds, curtains, and drapes, because cords are not critical to the operation of these products. Narrowing the rule to these three product types would lessen the cost impact and make it unlikely that any particular product type and/or size would be eliminated, and costs would be near \$0 because using plastic rods for operation is very similar to cords in cost. However, only 2 of the 35 custom product incidents (both are fatalities) were associated with vertical blinds, and there were no curtain or drape incidents where the stock/custom classification could be determined. This option would not result in an effective reduction in injuries and deaths.

(3) Another alternative the Commission considered was providing a longer effective date. This may reduce the costs of the rule by spreading costs over a longer period, but it would also delay the benefits of the rule, in the form of reduced deaths and injuries.

(f) *Unreasonable risk.* (1) Based on CPSC's Injury Cost Model, about 185 medically treated nonfatal injuries have occurred annually from 2009 through 2020, involving children eight years and younger. Based on a review of National Center for Health Statistics (NCHS) and a separate study of child strangulations, a minimum of nine fatal strangulations related to window covering cords occurred per year in the United States among children under five years old from 2009–2019. Based on reviews of CPSC databases, we found that a total of 194 reported fatal and nonfatal strangulations on window coverings occurred among children eight years and younger, from January 2009 through December 2020. Nearly 46 percent were fatal incident reports (89 of 194), while the remaining were near-miss nonfatal incidents.

(2) The Commission estimates that the rule would result in aggregate benefits of about \$49.5 million annually. Of the potential modifications for which staff

was able to estimate the potential cost, the lowest costs were about \$2.15 per unit. Effective performance requirements for operating cords on window coverings are well known and already utilized for lower-priced stock window coverings. Technologies to address hazardous window covering cords are also known and utilized on stock products. Moreover, the rule is unlikely to have a large impact on the utility and availability of custom window coverings, but may have an impact on cost, depending on the design of the window covering.

(3) The determination of whether a consumer product safety rule is reasonably necessary to reduce an unreasonable risk of injury involves balancing the degree and nature of the risk of injury addressed by the rule against the probable effect of the rule on the utility, cost, or availability of the product. The Commission does not expect the rule to have a substantial effect on the utility or availability of custom window coverings. The rule may impact the cost of custom window coverings, but consumers already pay more for custom window coverings, and are likely willing to pay more for safer products.

(4) Weighing the possibility of increased costs for custom window coverings with the continuing deaths and injuries to young children, the Commission concludes that custom window coverings with hazardous operating cords pose an unreasonable risk of injury and death and finds that the rule is reasonably necessary to reduce that unreasonable risk of injury and death.

(5) The rule would apply the same requirements to custom window coverings that already apply to stock products. The requirements to address the hazard and the available technologies are widely known and already utilized on the least expensive products. Despite this fact, custom products remain corded, and deaths and injuries to young children on window covering cords continues. Consumers do not appreciate the risk of strangulation, or how quickly deaths and injuries occur, even when children are supervised, and custom products can remain in consumer's homes for decades. Due to the ongoing fatal and nonfatal incidents associated with window covering cords, high severity of the outcomes (death and disability to children), proven technical feasibility of cordless products, the implementation of stronger operating cord requirements for stock window coverings already on the market, and the ineffectiveness of warnings and safety devices for this

<sup>1</sup> Staff does not have information on detailed sales data to determine the impact of the ANSI/WCMA–2018 on stock products. CPSC contractor (D+R) aimed to identify the share of custom versus stock sales over time to understand how the window covering market has changed in response to the ANSI/WCMA–2018 as the standard primarily impacts stock products. Researchers considered that metal/vinyl blinds, roller shades, vertical blinds, and wood/faux wood blinds are the categories that should be most affected by the standard, given their large share in stock product sales. They assumed that if these categories had an increase in custom sales after 2018, it would indicate that the cordless operation could be one of the factors driving consumers towards purchasing custom products with corded operation, despite the higher price points. However, researchers' projections indicate that there is not a consistent trend towards greater custom sales, and in the case of metal/vinyl blinds, there is an increasing share of stock sales over time.

class of products, the Commission will regulate operating cords on custom window coverings.

(g) *Public interest.* This rule is intended to address an unreasonable risk of injury and death posed by hazardous operating cords on custom window coverings. The Commission believes that adherence to the requirements of the rule will significantly reduce or eliminate a hidden hazard, strangulation deaths and injuries to children 8 years old and younger, in the future; thus, the rule is in the public interest.

(h) *Voluntary standards.* The Commission is aware of one national voluntary standard, ANSI/WCMA–2018 (incorporated by reference in § 1260.5), and European, Australian, and Canadian standards. Among these, the Commission considers the Canadian standard to be the most stringent because it applies to all window coverings. ANSI/WCMA–2018 contains adequate performance requirements to address the risk of strangulation on for inner cords for both stock and custom window coverings and contains adequate requirements to address the risk of injury on operating cords for stock products. The Commission also believes that custom window coverings substantially comply with the voluntary standard. However, the Commission does not consider the operating cord requirements for custom window coverings in the standard adequate to address the risk of injury, because the voluntary standard still allows accessible and hazardous operating cords to be present on custom products.

(i) *Relationship of benefits to costs.* (1) The aggregate benefits of the rule are estimated to be about \$49.5 million annually; and the lowest cost of the rule is estimated to be about \$156.5 million annually. Some recent studies have suggested that the VSL for children could be higher than that for adults. In other words, consumers might be willing to pay more to reduce the risk of premature death of children than to reduce the risk of premature death of adults. A review of the literature conducted for the CPSC suggested that the VSL for children could exceed that of adults by a factor of 1.2 to 3, with a midpoint of around 2 (IEc, 2018). This analysis included other uncertainties, such as cost estimate calculations, the number of corded window coverings in

use, and the expected product life for certain blind types.

(2) The cost studies from which staff derived all of the cost estimates could be outdated, given the first study was completed in 2016, about 2 years before WCMA revised the voluntary standard for stock products. Economies of scale could have reduced costs related to cordless components since the completion of the first cost study in 2016. Additionally, the assumption used to create the estimate of corded products in the market is based on interviews with manufacturers and retailers, some of whom gave conflicting accounts.<sup>2</sup>

(3) Finally, the estimated product life used in the analysis for vinyl and metal horizontal blinds was significantly shorter than for the other products. This analysis was based on work completed by D+R for the Department of Energy (2013). However, this estimate may be skewed because of the dominance of stock window coverings in this category. Custom window coverings have a longer product life. For example, WCMA stated in their response to this rulemaking that the expected product life for a custom window covering is 10 years and is 3–5 years for a stock window covering. CPSC staff expects a higher per-unit benefit for custom products because of the longer expected product life.

(4) In this case, the cost of certain custom window coverings may increase if redesigned to meet the requirements in the rule. However, effective performance requirements for operating cords on window coverings are well known and already utilized for lower-priced stock window coverings. Moreover, technologies to address hazardous window covering cords are also known and utilized on stock products. Finally, consumers are likely willing to pay more for a custom window covering that eliminates the strangulation risk to children.

(5) Based on this analysis, the Commission finds that the benefits expected from the rule bear a reasonable relationship to the anticipated costs of the rule.

(j) *Least burdensome requirement that would adequately reduce the risk of*

<sup>2</sup> For example, one small retailer CPSC staff contacted provided an account that stated demand and sales of corded products have increased in the past two years, which is in conflict with multiple accounts from manufacturers and other larger retailers.

*injury.* (1) The Commission considered less-burdensome alternatives to the rule but concludes that none of the considered alternatives would adequately reduce the risk of injury.

(2) The Commission considered relying on voluntary recalls, compliance with the voluntary standard, and education campaigns, rather than issuing a mandatory standard. These alternatives would have minimal costs but would be unlikely to reduce the risk of injury from custom window coverings that contain hazardous cords.

(3) The Commission considered issuing a standard that applies only to a certain type of window covering such as vertical blinds. This would impose lower costs on manufacturers but is unlikely to adequately reduce the risk of injury because it would only address incidents associated with those types. Based on the custom product incident data, only 5.7 percent of the incidents involved vertical blinds and 22.7 percent involved faux wood/wood blinds.

(4) The Commission considered providing a longer effective date for the final rule. This option may reduce the costs of the rule by spreading costs over a longer period, but it would also delay the benefits of the rule, in the form of reducing the effectiveness of the final rule during the period of delay.

**Note 2 to § 1260.4:** The content in brackets is currently unknown or specific to this proposed rule and will be updated with publication of an associated final rule.

#### **§ 1260.5 Standards incorporated by reference.**

(a) Certain material is incorporated by reference into this part with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. All approved material is available for inspection at Division of the Secretariat, U.S. Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814, telephone (301) 504–7479, email: [cpssc-os@cpssc.gov](mailto:cpssc-os@cpssc.gov), and is available from the sources listed below. You may also inspect a copy at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to: [www.archives.gov/federal-register/cfr/ibr-locations.html](http://www.archives.gov/federal-register/cfr/ibr-locations.html).

(b) Window Covering Manufacturers Association, Inc., 355 Lexington Avenue, New York, New York, 10017, telephone: 212.297.2122, <https://wcmanet.com>.

(1) ANSI/WCMA A100.1—2018, American National Standard for Safety of Corded Window Covering Products,

approved January 8, 2018; IBR approved for §§ 1260.1 and 1260.2.

(i) *Read-only copy.* [https://www.wcmanet.com/pdf/WCMA-A100.1-2018\\_view-only\\_v2.pdf](https://www.wcmanet.com/pdf/WCMA-A100.1-2018_view-only_v2.pdf).

(ii) *Purchase.* <https://webstore.ansi.org/Standards/WCMA/ANSIWCMMAA1002018>.

(2) [Reserved]

**Alberta E. Mills,**  
*Secretary, Consumer Product Safety Commission.*

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