



Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1120

[CPSC Docket No. CPSC-2015-0003]

Substantial Product Hazard List: Extension Cords

AGENCY: Consumer Product Safety Commission.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Consumer Product Safety Commission (CPSC or Commission) is proposing a rule to specify that extension cords (both indoor and outdoor use extension cords) that do not contain one or more readily observable characteristics set forth in the proposed rule constitute a substantial product hazard under the Consumer Product Safety Act (CPSA). The rule would amend 16 CFR part 1120, which lists products that the Commission has determined present a substantial product hazard if the products have or lack specified characteristics that are readily observable, have been addressed by a voluntary standard, such standard has been effective in reducing the risk of injury associated with the product, and there is substantial compliance with the standard.

DATES: Written comments must be received by [INSERT DATE THAT IS 75 DAYS AFTER PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may submit comments, identified by Docket No. CPSC-2015-0003, by any of the following methods:

Electronic Submissions: Submit electronic comments to the Federal eRulemaking Portal at: <http://www.regulations.gov>. Follow the instructions for submitting comments. The Commission does not accept comments submitted by electronic mail (e-mail), except through

www.regulations.gov. The Commission encourages you to submit electronic comments by using the Federal eRulemaking Portal, as described above.

Written Submissions: Submit written submissions by mail/hand delivery/courier to: Office of the Secretary, Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814; telephone (301) 504-7923.

Instructions: All submissions received must include the agency name and docket number for this notice. All comments received may be posted without change, including any personal identifiers, contact information, or other personal information provided, to:

<http://www.regulations.gov>. Do not submit confidential business information, trade secret information, or other sensitive or protected information that you do not want to be available to the public. If furnished at all, such information should be submitted in writing.

Docket: For access to the docket to read background documents or comments received, go to: <http://www.regulations.gov>, and insert the docket number CPSC-2015-0003, into the “Search” box, and follow the prompts.

FOR FURTHER INFORMATION CONTACT: Arthur Lee, Office of Hazard Identification and Reduction, Consumer Product Safety Commission, National Product Testing and Evaluation Center, 5 Research Place, Rockville, MD 20850; telephone: 301-987-2008; alee@cpsc.gov.

SUPPLEMENTARY INFORMATION:

I. Introduction

The Commission proposes to issue a rule under section 15(j) of the CPSA, 15 U.S.C. 2064(j), which would amend the substantial product hazard list in 16 CFR part 1120 (part 1120). The substantial product hazard list in part 1120 would be amended to add extension cords that

lack certain readily observable characteristics. Four characteristics apply to all general-use extension cords (indoor and outdoor extension cords including indoor seasonal extension cords):

- (1) minimum wire size;
- (2) sufficient strain relief;
- (3) proper polarity; and
- (4) proper continuity.

In addition, one characteristic (outlet covers) applies to certain 2-wire indoor extension covers and one characteristic (jacketed insulated cord) applies to outdoor extension cords. Under the proposed amendment to part 1120, extension cords that do not contain one or more of the specified readily observable characteristics would be deemed to create a substantial product hazard under section 15(a)(2) of the CPSA because such products pose a risk of electrical shock or fire. These identified, readily observable characteristics for extension cords have been addressed in a voluntary standard, Underwriters Laboratories (UL), *Standard for Cord Sets and Power-Supply Cords*, UL 817, 11th Edition, dated March 16, 2001, revised February 3, 2014 (UL 817).¹

As detailed in this notice, the Commission determines preliminarily that:

- minimum wire size; sufficient strain relief; polarization; continuity; outlet covers (for indoor cords); and flexible jacketed insulation (for outdoor cords) are all readily observable characteristics of extension cords;
- the identified readily observable characteristics are addressed by a voluntary standard, UL 817;

¹ The UL mark and logo are trademarks of UL, LLC (formerly known as Underwriters Laboratories, Inc.).

- conformance to UL 817 has been effective in reducing the risk of injury from shock and fire associated with indoor and outdoor extension cords; and
- extension cords sold in the United States substantially comply with UL 817.

A. Background and Statutory Authority

Section 223 of the Consumer Product Safety Improvement Act of 2008 (CPSIA), amended section 15 of the CPSA, 15 U.S.C. 2064, to add a new subsection (j). Section 15(j) of the CPSA provides the Commission with the authority to specify, by rule, for any consumer product or class of consumer products, characteristics whose existence or absence are deemed a substantial product hazard under section 15(a)(2) of the CPSA. 15 U.S.C. 2064(j). Section 15(a)(2) of the CPSA defines a “substantial product hazard,” in relevant part, as a product defect which (because of the pattern of defect, the number of defective products distributed in commerce, the severity of the risk, or otherwise) creates a substantial risk of injury to the public. For the Commission to issue a rule under section 15(j) of the CPSA, the characteristics involved must be “readily observable” and have been addressed by a voluntary standard. Moreover, the voluntary standard must be effective in reducing the risk of injury associated with the consumer products; and there must be substantial compliance with the voluntary standard. *Id.*

The Commission has issued two previous final rules under section 15(j) of the CPSA, codified in 16 CFR part 1120, involving drawstrings on children’s upper outerwear (76 FR 42502, July 19, 2011) (drawstring rule) and integral immersion protection on handheld hair dryers (76 FR 37636, June 28, 2011) (hair dryer rule). Additionally, on October 16, 2014, the Commission issued a notice of proposed rulemaking to include seasonal and decorative lighting products in part 1120. 79 FR 62081. The Commission has not defined a “readily observable” characteristic in any rule. In the proposed drawstring rule (75 FR 27497, 27499, May 17, 2010),

the Commission found that the requirements detailed in the relevant voluntary standard could be evaluated with “simple manipulations of the garment, simple measurements of portions of the garments, and unimpeded visual observation.” The Commission stated: “more complicated or difficult actions to determine the presence or absence of defined product characteristics also may be consistent with ‘readily observable.’” The Commission stated its intent to evaluate “readily observable” characteristics on a case-by-case basis. 75 FR at 27499. Finally, in the proposed rule on seasonal and decorative lighting, the Commission determined preliminarily that minimum wire size, sufficient strain relief, and overcurrent protection were “readily observable” characteristics of lighting products through visual observation, or visual observation of a simple measurement. 79 FR at 62082 & 62084-06.

B. Extension Cords

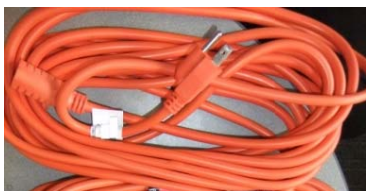
1. Product Description

The proposed rule uses the phrase “extension cord” to identify the products that are within the scope of the rule. The Commission proposes to define an “extension cord” (also known as a cord set) as a length of factory-assembled flexible cord with an attachment plug or current tap as a line fitting and with a cord connector as a load fitting. Extension cords are used for extending a branch circuit supply of an electrical outlet to the power-supply cord of a portable appliance, in accordance with the National Electrical Code.[®] For purposes of the proposed rule, the term applies to extension cords that are equipped with National Electrical Manufacturer Association (NEMA) 1-15, 5-15 and 5-20 fittings, and that are intended for indoor use only or for both indoor and outdoor use. We refer to cords intended for indoor use only as “indoor cords” and to cords intended for both indoor and outdoor use as “outdoor cords.” The term extension cord does not include detachable power supply cords, appliance cords, power

strips and taps, and adaptor cords supplied with outdoor tools and yard equipment. The proposed definition is consistent with the description of products subject to the applicable voluntary standard, as set forth in section 1 of UL 817.



Indoor Cord



Outdoor Cord



Seasonal Indoor Cord

Picture 1. Extension Cords

Picture 1 depicts products that come under the definition of “extension cord” in the proposed rule. All in-scope products are covered by UL 817. Table 1 provides a non-exhaustive list of examples of extension cords that fall within and out of scope of the proposed rule. Not included in this rule are detachable power supply and appliance cords with non-NEMA fittings and adaptor cords supplied with outdoor tools and yard equipment because these are specific-purpose, rather than general-use, cords. The products that are out of scope for the proposed rule, are not subject to UL 817, or do not present the same risks of injury.

**Table 1: Extension Cords:
Products Within and Outside the Scope of the Proposed Rule**

<p><u>In Scope:</u> Household extension cords, factory-assembled, 120 volts AC, including:</p> <ul style="list-style-type: none"> • Indoor or general-use cord sets, including seasonal indoor cord sets • Outdoor cord sets
<p><u>Out of Scope:</u></p> <ul style="list-style-type: none"> • Detachable power cords, either with appliance or other nonstandard plugs (<i>e.g.</i>, accompanying electronic or other electrically powered items), or with fittings of different configurations (<i>e.g.</i>, a clothes washer replacement cord with a plug at one end and individual wire terminals at the other end) • Unassembled components, such as flexible cord or fittings, which may be assembled into extension cords or installed in permanent branch circuit wiring systems • Cord sets intended for use with non-branch-circuit household current, <i>i.e.</i>, greater or less than nominal 120 volts AC (<i>e.g.</i>, for use with 220 volt appliances, or for 15-50 ampere/125-250-volt recreational vehicles) • Power strips, power taps, and surge protectors

2. Applicable Voluntary Standard

The current voluntary standard applicable to extension cords is UL 817-2014. UL has updated UL 817 over the years to address various safety issues to make extension cords safer, *see* Staff's Draft Proposed Rule to Add Extension Cords to the Substantial Product Hazard List in 16 CFR Part 1120, January 21, 2015 (Staff Briefing Package) Tab B, Extension Cords: Abbreviated History and the Associated UL Standards. The staff's briefing package is available on the CPSC's website at:

<http://www.cpsc.gov/Global/Newsroom/FOIA/CommissionBriefingPackages/2015/Proposed-Rule-to-Amend-Substantia-Product-Hazard-List-to-Include-Extension-Cords.pdf>. Since 1987, the standard has addressed most of the identified, readily observable characteristics (minimum wire size, sufficient strain relief, proper polarization, proper continuity, outlet covers for indoor cords, and jacketed insulated cords for outdoor extension cords) that are included in this proposed rule.

Many of the safety requirements for extension cords predate the existence of the CPSC. CPSC staff believes that UL incorporated requirements for polarized (and grounded) plugs and receptacles on cord sets around 1962. A CPSC staff search found that grounded plugs were developed as early as 1911, and polarized plugs became available in 1914. The National Electrical Code (NEC) adopted requirements for polarized electrical outlets in 1948 and for grounded 120-volt receptacles in 1962.

Table 2 summarizes the required characteristics in UL 817 associated with all extension cords, as well as specific requirements for indoor and outdoor use extension cords.

Table 2. Readily Observable Characteristics for Extension Cords

General Extension Cord Usage	Readily Observable Characteristics				
	Minimum Wire Size (AWG)	Sufficient Strain Relief	Proper Polarization	Proper Continuity	Protective Feature
Indoor <i>UL 817 Section 20</i>	16AWG, or 17/18AWG with integral overcurrent protection <i>UL 817 Sections 2.10, 21</i>	18AWG or larger must withstand 30 pound force <i>UL 817 Section 84</i>	Cord fittings must be polarized (NEMA1-15) or have a grounding pin (NEMA5-15) <i>UL 817 Sections 9, 19</i>	Plug and outlet terminals must be connected in identical configuration (<i>i.e.</i> , Hot-to-Hot, likewise for Neutral and Ground) <i>UL 817 Sections 16, 105</i>	Outlet covers must be provided on unused outlets on 2-wire parallel <i>UL 817 Section 26.7</i>
Outdoor <i>UL 817 Section 30</i>	SAME <i>UL 817 Section 2.13, 30</i>	SAME	SAME <i>UL 817 Sections 31, 32</i>	SAME	Jacketed flexible cord <i>UL 817 Section 30</i>

3. Electrocutation and Fire Hazards

Consumers can be seriously injured or killed by electrical shocks or fires if extension cord products are not constructed properly. All extension cords covered by UL 817 must comply with requirements for minimum wire size, sufficient strain relief, proper polarization, and proper continuity. Meeting these requirements reduces the risk of injury caused by fires or electrical shocks.

- *Wire size.* Conforming to the minimum wire size requirement in UL 817 supports a product's electrical load to avoid the hazard of fire and electrical shock. When an extension cord does not contain the correct wire size for the load, the cord becomes hot and the insulation is degraded. Damaged insulation can fail by sagging, melting, or hardening and breaking apart, which can expose the energized wire inside the extension cord. Exposed energized wires present a risk of fire and electrical shock. Additionally, conforming to the minimum wire size requirement contributes to the necessary mechanical strength to endure handling and other forces imposed on an extension cord during expected use of the product.

- *Strain relief.* Conforming to the strain relief requirement in UL 817 helps to ensure that use of extension cords, including pulling and twisting the cords, does not cause mechanical damage to the connections and prevents separation of wires from their terminal connections during handling (pulled, twisted, etc.). Damaged connections, such as broken strands of copper wiring inside the insulated wiring, could cause overheating (leading to a fire) or separation of wires from their terminal connections, which could expose bare energized conductors, leading to electrical shock and fire.

- *Proper polarity.* An extension cord that conforms to the proper polarity requirements in UL 817 minimizes the risk of accidental contact with an energized conductor. Polarization clearly identifies the energized wire in the cord set and ensures, in conjunction with other construction requirements, that products, such as lighting, appliances, and other equipment plugged into the extension cord provide power in the same orientation as the receptacle of the branch circuit. For example, a product that employs a power switch that must be located in the energized side of the power supply circuit will be supplied in the proper orientation, thus reducing the risk of electrical shock.

- *Proper Continuity.* An extension cord that conforms to continuity requirements in UL 817 provides a continuous conductive path from line to load fitting so that the cord can serve the function for which it is intended. For each terminal in the plug fitting, a corresponding conductor must be attached to the corresponding terminal in the load fitting. For example, a cord attached to a plug with a grounding pin must have a grounding conductor. Each wire in the cord also must be connected properly on each end so that, for example, the grounding pin of the plug on a three-wire cord is connected to the grounding socket on the outlet, and the energized blade

on the plug is not wired to the non-energized receptacle on the outlet. Proper continuity from end to end reduces the risk of both fire and electrical shock.

Indoor and outdoor extension cords each have one additional safety requirement that is also readily observable and reduces the risk of injury.

- *Outlet covers.* Indoor 2-wire parallel extension cords with polarized parallel-blade and -slot fittings must contain outlet covers. Outlet covers reduce the risk of injury to children, in particular, by minimizing the opportunity for a child to probe plugs with small objects or chew on the exposed receptacle surfaces, which can lead to hand or mouth burns and electrical shock.

- *Jacketed cords.* Outdoor extension cords must have jacketed cords. A jacketed cord protects the individual insulated wires from damage when exposed to weather and other conditions associated with outdoor use. An unjacketed extension cord used outdoors is susceptible to damage that can lead to exposed conductors, thus presenting a risk of shock and fire.

4. Risk of Injury

CPSC has been concerned with the number of fires and injuries resulting from extension cords for many years. CPSC staff searched extension cord incident data from CPSC's Injury or Potential Injury Database (IPII) for both fatal and nonfatal incidents, and staff searched the Death Certificate Database (DTHS) for fatal incidents. Staff limited the scope of the incidents considered to incidents involving fire, burn, and shock hazards. Separate product codes do not exist in CPSC's databases for indoor and outdoor extension cords. Moreover, incident narratives often do not make clear which type of cord was involved. Accordingly, staff's analysis considers indoor and outdoor extension cords together.

Staff's search of IPII data found 716 in-scope fatal extension cord incidents between 1980 and 2013. These incidents caused 1,078 deaths. The search of DTHS found 47 unique (not duplicates of incidents found in IPII) fatal, in-scope incidents that occurred between 1980 and 2013. These 47 incidents led to 47 deaths. In total, the two databases have 763 fatal in-scope extension cord incidents that caused 1,125 deaths between 1980 and 2013.

Table 3 shows the annual average number of incidents for five different periods for fatal incidents, deaths, and nonfatal incidents. The table breaks the 34-year period into four 7-year periods and a 6-year period. Reporting may not be complete for the most recent period because sometimes CPSC receives reports of incidents years after the incidents have occurred. Table 3 shows a decline in the number of reported extension cord fire, burn, and shock fatal incidents, deaths, and nonfatal incidents in CPSC databases from the 1980s.

Table 3. Extension Cord Annual Average² of Reported Fatal Incidents, Deaths, and Nonfatal Incidents from 1980–2013³

Years	Fatal Incidents	Deaths	Nonfatal Incidents
1980–1986	32.7	47.7	201.0
1987–1993	27.7	46.6	178.7
1994–2000	23.6	31.1	131.6
2001–2007	15.9	21.7	112.3
2008–2013 ³	10.7	15.8	51.0

5. Office of Compliance Efforts to Address Extension Cord Hazards

In numerous instances, CPSC staff has considered the absence of one or more of the identified readily observable characteristics (minimum wire size, sufficient strain relief, proper polarization, proper continuity, outlet covers for indoor cords, and jacketed insulated cords for outdoor extension cords) to present a substantial product hazard and has sought appropriate

² The numbers are given as annual averages instead of totals because the periods are not divided equally.

³ A lag exists between when an incident occurs and when it appears in the data. The most recent years may be incomplete. For the IPII extension cord data, 99 percent of the nonfatal incidents have a lag time of less than 1 year. For the fatal IPII incidents, 96 percent of the data have a lag time of less than 1 year. For DTHS, as of December 31, 2014, the database is 76 percent complete for 2013, 97 percent complete for 2012, 98 percent complete for 2011, and 99 percent complete for 2009 and 2010.

corrective action to prevent injury to the public. From 1994 to August 2014, as shown in the Staff Briefing Package, Tab D, Extension Cords: Product Recalls and Import Stoppages, Table 1, CPSC staff obtained 29 voluntary recalls of extension cords involving a total of 3.2 million units. In addition to recalls, CPSC staff identified 54 shipments of extension cords at import involving a total of 160,000 units, in which extension cords may not have complied with UL 817. *See* Staff Briefing Package, Tab D, Table 2. Tables 1 and 2 of Tab D list enforcement actions based on a staff preliminary determination of a substantial product hazard. Most of the hazards listed in Tables 1 and 2 correspond to the readily observable characteristics in the proposed rule. Accordingly, if the proposed rule is finalized, such nonconformance would constitute a Commission-determined substantial product hazard under 16 CFR part 1120.

Additionally, the Office of Compliance sent a letter dated January 9, 2015 to manufacturers, importers, and retailers of extension cords, informing them that the Office of Compliance considers products that do not conform to the UL 817 requirements for the identified readily observable characteristics to be defective and to present a substantial product hazard. *See* Staff Briefing Package, Tab A, Office of Compliance January 9, 2015 Letter to Manufacturers, Importers, and Retailers of Extension Cords. Accordingly, relevant stakeholders are on notice of the requirements of UL 817 and reporting requirements under section 15 of the CPSA.

II. Preliminary Determination of Substantial Product Hazard

A. Defined Characteristics Are Readily Observable

Sections 2, 9, 16, 19, 20, 21, 26, 30, 31, 32, 84, and 105 of UL 817 set forth the requirements for the identified readily observable characteristics specified in the proposed rule: minimum wire size, sufficient strain relief, proper polarization, proper continuity, outlet covers for certain 2-wire indoor cords, and jacketed insulated cords for outdoor extension cords. Table

2 in section I.B.2 of this preamble summarizes the technical requirements for the identified readily observable characteristics in UL 817. Additionally, Tab C of the Staff’s Briefing Package, Extension Cords: Readily Observable Safety Characteristics, provides more detail on the information presented in Table 2. If finalized, the rule would deem the absence of any one or more of these specified characteristics to be a substantial product hazard under section 15(a)(2) of the CPSA.

1. Minimum Wire Size

Section 2 of UL 817 specifies a “general-use cord set” using flexible cord as described in Table 20.1 of UL 817 with conductors sized 18, 17, 16, 14, 12, or 10 AWG terminated in a plug and outlet. Extension cords using flexible cord with conductors sized 18 or 17 AWG also require overcurrent protection.

Minimum wire size is readily observable by measuring the bare conductors. Before measuring the wire size, staff must expose the conductors within the wire. Exposing the wire is done quickly and easily by using a small, handheld tool to strip the electrical insulation from the wiring. One method of measurement uses a circular wire gauge, which can determine if the wire size meets the minimum, as specified in UL 817. Picture 2 demonstrates use of a wire gauge to measure wire size. In Picture 2, the 16 AWG wire passes through the 16 AWG slot but not through any of the thinner (numerically larger) AWG slots.



Picture 2: Measuring Wire Size

In CPSC staff's experience, extension cords that do not meet the minimum wire size requirement typically fail by using wiring that is substantially undersized for the product; staff has observed products that use wiring that is more than six wire sizes smaller than the minimum required.

The Commission determines preliminarily that minimum wire size, as required in section 2 of UL 817, is a readily observable characteristic of extension cords that can be observed visually by taking a simple measurement of the product's bare wires.

2. Sufficient Strain Relief

Section 84 of UL817 describes the strain relief test required for all extension cords. Section 84.2.1 specifies that cords with 18AWG or larger conductors must withstand a 30-pound pull force on the connection between the fitting and the cord. Section 84.2.2 of UL 817 specifies that a weight must be steadily suspended from the cord for 1 minute so that the cord is pulled directly from the fitting without the cord pulling loose or stretching from the plug/load fitting. In CPSC staff's experience, a lighting product with insufficient strain relief will typically fail this test within a few seconds of suspending the applicable weight. CPSC engineering staff has

found that equivalent results are accomplished by suspending a weight from the body of the fitting, as illustrated in Picture 3.



Picture 3: Strain Relief

The Commission determines preliminarily that sufficient strain relief, as required in section 84 of UL 817, is a readily observable characteristic of extension cords that can be observed based on whether an extension cords stretches or breaks when suspending a 30-lb. weight from the plug and load fittings.

3. Proper Polarization

Section 19 of UL 817 requires that all two-wire extension cords must have polarized fittings. Sections 31 and 32 of UL 817 require that all two-conductor outdoor extension cords must have polarized fittings and that grounding fittings must be used on three-conductor cords. General UL construction specifications on fittings (Section 9.3 of UL 817) require that polarized outlets must reject improper or reversed insertion of polarized plugs to reduce the risk of shock.

Proper polarization is readily observable by visually inspecting the plug for a difference in the slot and blade widths or for the presence of a grounding pin and a matching outlet opening. Another visually observable method to determine compliance to UL 817 is to insert the plug of the extension cord (or any polarized two-blade plug) into the outlet on the opposite end of the cord using every possible orientation. The plug must fit into the outlet in only one orientation.

Pictures 4a and 4b demonstrate two types of polarized plugs. The extension cord shown in picture 4a meets the polarization requirement by using the slot and blade width method, and the extension cord shown in picture 4b meets the requirement using slot and blade width, and a grounding pin.



Picture 4a. Indoor fittings—plug & outlet in a NEMA 1-15 configuration



Picture 4b. Outdoor fittings—plug & outlet in a NEMA 5-15 configuration

The Commission determines preliminarily that proper polarization, as required in sections 9, 19, 31, and 32 of UL 817, is a readily observable characteristic of extension cords that can be observed based on a visual inspection of the plug.

4. Proper Continuity

Section 16 of UL 817 requires that corresponding terminals of line (plug) and load (outlet) fittings must be connected to the same conductor of the cord. Section 105 of UL 817 prescribes testing requirements for all manufactured extension cords so that the conductors are connected to the intended terminals of the fittings, and that electrical continuity exists throughout the entire length of the conductor/contact assembly. The wires of an extension cord must form continuous paths from one end to the other so the cord can serve the function for which it is intended. Each wire in the cord also must be properly connected on each end so that, for example, the grounding pin of the plug on a three-wire cord is connected to the grounding socket on the outlet, and the energized blade on the plug is not wired to the non-energized receptacle on the outlet.

Continuity is readily observable by checking the plug and outlet connections using a simple battery-light continuity tester. A simple continuity tester can be purchased at hardware stores or from online retailers for \$5 to \$7. For this procedure, insert one probe of the tester into a receptacle contact (slot or hole) of the extension cord and touch the other probe against each prong (blade or pin) of the extension cord plug. The tester light illuminates when the probes simultaneously touch the correct corresponding conductor terminals. An inexpensive portable ohmmeter or multimeter may also be used in a similar manner. The observation takes less than 1 minute. Picture 5 shows a battery light continuity tester with an extension cord.

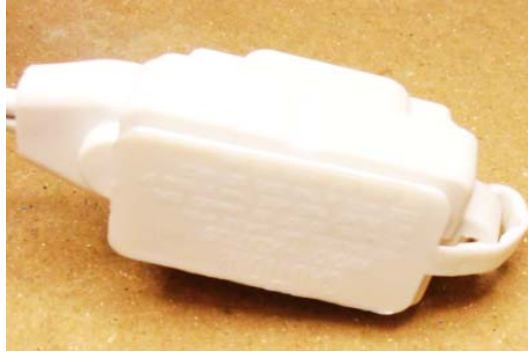


Picture 5. Observation of Proper Continuity

The Commission determines preliminarily that proper continuity, as required in sections 16 and 105 of UL 817, is a readily observable characteristic of extension cords that can be visually observed using a battery-light continuity tester.

5. Outlet Covers (Certain 2-Wire Indoor Extension Cords)

Section 26.7 of UL 817 requires that an indoor 2-wire parallel extension cord with polarized parallel-blade and -slot fittings that has more than one outlet must have covers for all the additional outlets, as illustrated in Picture 6. Outlet covers are readily observable by visually verifying that all but one outlet has an outlet cover.



Picture 6. Outlet cover on unused outlets

The Commission determines preliminarily that outlet covers on indoor 2-wire parallel extension cords with polarized parallel-blade and -slot fittings, as required in section 26 of UL 817, are a readily observable characteristic of indoor extension cords by visual inspection for the presence of the covers.

6. Jacketed Insulated Cords (Outdoor Extension Cords)

Section 30 of UL 817 requires that extension cords for outdoor use be manufactured using jacketed insulated flexible cord, that is, a cord consisting of two or three insulated wires covered by an additional jacket of insulation.

The required jacket is readily observable through visual observation of the thicker insulation on the cord. The jacket also is observable after cutting the cord. An outer insulator around the individual conductors is easily observed. Picture 7 depicts an example of a jacketed outdoor extension cord.



Picture 7. Jacketed outdoor extension cord

The Commission determines preliminarily that jacketed insulated cords on outdoor extension cords, as required in section 30 of UL 817, are a readily observable characteristic of outdoor extension cords by visual inspection.

B. Conformance to UL 817 Has Been Effective in Reducing the Risk of Injury

The Commission determines preliminarily that conformance to sections 2, 9, 16, 19, 20, 21, 26, 30, 31, 32, 84, and 105 of UL 817, as summarized in Table 2 in section I.B.2 of this preamble, has been effective in reducing the risk of injury from shock and fire associated with extension cords. Additionally, the CPSC's incident data suggest that conformance to UL 817 has contributed to a decline in the risk of injury associated with extension cords. *See* Tab E of Staff's Briefing Package, Extension Cords: Fire or Shock Incidents from 1980 to 2013.

Table 3 in section I.B.4 of this preamble lists the reported deaths associated with extension cords from 1980 to 2013.⁴ The 34-year period is broken up into four 7-year periods and a 6-year period. Although reporting may not be complete for the most recent period because sometimes CPSC receives reports of incidents years after the incidents have occurred, Table 3 demonstrates that the average numbers of fatal incidents, deaths, and nonfatal incidents have declined since 1980.

⁴ The numbers are given as annual averages instead of totals because the periods are not divided equally.

Figure 1 presents a 3-year moving average for reported deaths due to extension cords, by year, for the period 1980–2013,⁵ for data from the Potential Injury Database (IPII), and the Death Certificate Database (DTHS). Figure 1 shows that the reported number of deaths has declined since as early as 1993, and continued on a downward trend to 2013. This decrease may be due to various factors, such as changes to UL 817, home building codes, and fire-prevention strategies. The reduced number of reported deaths may be partially attributed to the construction and performance requirements in the current UL 817 standard.

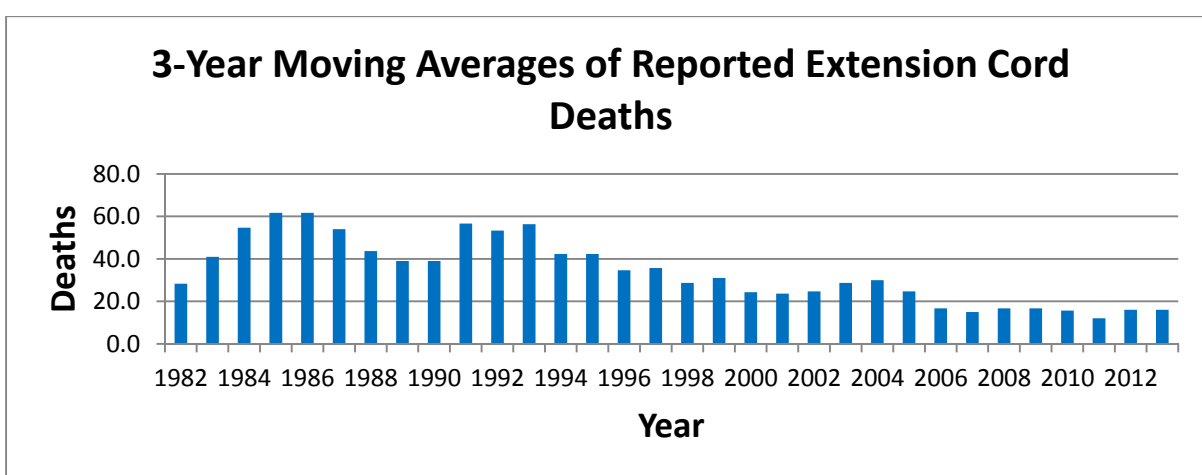


Figure 1. Three-Year Moving Averages of Reported Extension Cord Product Deaths from 1980 to 2013

Figure 2 presents a 3-year moving average for nonfatal incidents due to extension cord products, by year, for the period 1980–2013, for data from IPII. Figure 2 also demonstrates an overall downward trend during this period, with the exceptions of yearly fluctuations. The decrease can be attributed to several factors, including: changes to UL 817, enhanced home building code requirements, and fire prevention strategies. The construction and performance requirements in the current UL 817 standard for extension cord products have made the products

⁵ A lag exists between when an incident occurs and when it appears in the data. The most recent years may be incomplete. For the IPII extension cord data, 99 percent of the nonfatal incidents have a lag time of less than 1 year. For the fatal IPII incidents, 96 percent of the data have a lag time of less than 1 year. For DTHS, as of December 31, 2014, the database is 76 percent complete for 2013, 97 percent complete for 2012, 98 percent complete for 2011, and 99 percent complete for 2009 and 2010.

safer than products manufactured without these construction and performance requirements. As discussed above, the identified characteristics increase the safety of extension cords.

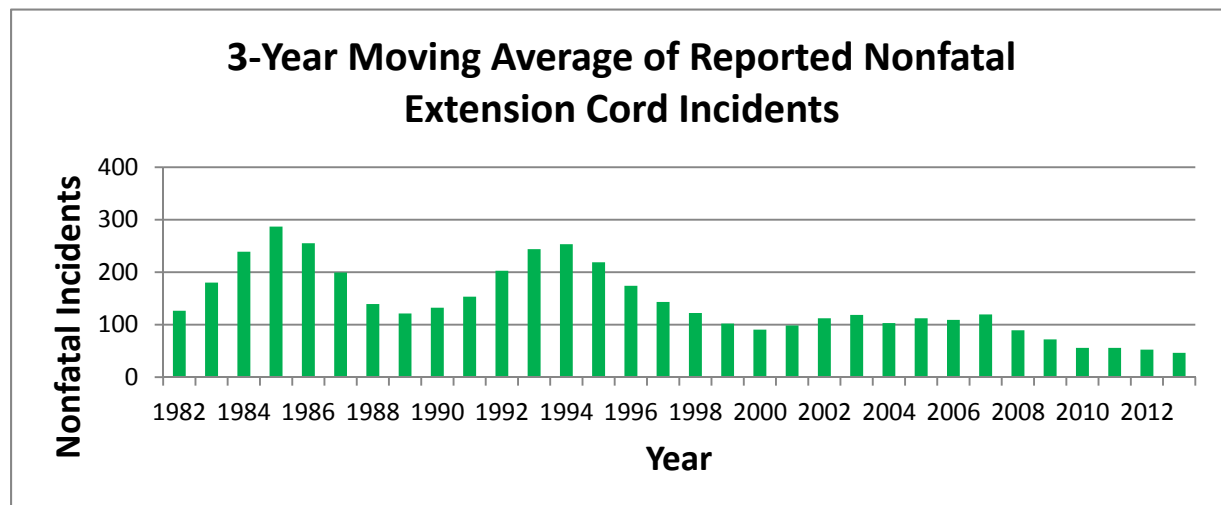


Figure 2. Three-Year Moving Averages of Reported Extension Cord Product Nonfatal Incidents from 1980 to 2013

C. Extension Cords Substantially Comply with UL 817

The CPSA does not define “substantial compliance” with a voluntary standard. Legislative history of the CPSA regarding a finding of “substantial compliance” in the context of issuing a consumer product safety standard indicates that substantial compliance should be measured by considering the number of complying products rather than the number of manufacturers of products that comply with a standard. H.R. Rep. No. 208, 97th Cong., 1st Sess. 871 (1981). This same legislative history indicates further that substantial compliance may be found when an unreasonable risk of injury associated with a product will be eliminated or adequately reduced “in a timely fashion.” *Id.* The Commission has not articulated a bright line rule for substantial compliance. Rather, in the rulemaking context, the Commission has stated that the determination of substantial compliance should be made on a case-by-case basis.

The Commission determines preliminarily that compliance with UL 817 is “substantial” as that term is used in section 15(j) of the CPSA. This determination is based on CPSC staff’s

review of market information and compliance activity. Staff estimates that the current level of voluntary conformance to UL's standard for extension cords, UL 817, is very high among units sold to consumers in the United States, likely in excess of 90 percent. *See* Tab F of Staff's Briefing Package, Extension Cords: Information about the Product and Level of Conformance to UL Voluntary Standard.

1. Market Data

Limited information is available about the market for extension cords and about producers and sellers. A substantial majority of products that would be subject to the proposed rule appear to be imported, primarily from the People's Republic of China. Other exporting nations named in International Trade Commission (ITC) reports include Mexico, Germany, the Republic of China (Taiwan), and Canada. Some cord sets are produced domestically, and some of these are household products subject to UL 817; however, most domestically produced items appear to be intended for industrial or other commercial use. Based on contacts with industry representatives and a review of online listings, CPSC staff has identified only four domestic producers of extension cords that would be subject to the proposed rule.

Imports of extension cords are enumerated under the ITC's Harmonized Tariff System of the United States (HTS) code 8544.42.9000, "insulated electric conductors, for a voltage not exceeding 1,000 volts, fitted with connectors, not elsewhere specified or included." This category includes a wide variety of communication and energy transmission cables, components, and related products; data for extension cords are not reported separately. The HTS grouping is analogous to the North American Industry Classification System (NAICS) code 335999 for domestically produced miscellaneous electrical equipment and components; this NAICS code includes 40 distinct product subcategories, including many that are industrial or commercial

products. The ITC reported that in 2013 the declared value of imports under this HTS code was about \$2.8 billion, comprising about 775,000 entry lines (*i.e.*, individual shipments) by nearly 11,000 importers (including brokers and shipping companies that file bills of lading). Monthly ITC reports indicate that the category will increase by about 6 percent in 2014, to approximately \$3.0 billion in import value. Although no breakdowns of these published aggregate statistics are available, the large number of products involved suggests that only a small proportion of the volume and value of shipments under this HTS code likely are comprised of products that would be subject to the proposed rule.

The ITC tariff database shows that the largest number of import shipments in 2013 originated from China. An online wholesale directory, GlobalSources.com, identified 77 suppliers (including trading companies) in China, Hong Kong, or Taiwan that export extension cords to the United States. Another product directory, Made-in-China.com, identified 798 Chinese suppliers of extension cords and other flexible cords. About 10 to 15 members of the National Electrical Manufacturers Association (NEMA) produce or import extension cords, almost all from China. NEMA reports that all of its members market only UL-conforming products.

Given the large number of firms involved in trade for the wide variety of products in the category, a small minority of such firms likely imports extension cords subject to UL 817; however, even if only 10 percent were subject to the proposed rule, the number of firms would still be substantial at more than 1,000. Some importers market products only to wholesalers and retailers; other importers are also retailers that market directly to consumers, either online or through physical stores. CPSC staff has identified about 20 leading importers, most of which

appear to be large, multinational firms; however, a great majority of the importers of extension cords likely are small businesses.

Some of the leading importers market multiple brands of extension cords that would be covered by the proposed rule. Roughly 20 to 25 national brands (including those of several major retailers) are dominant in the consumer market. Some of the lowest-priced products are unbranded.

2. Usage and Pricing

According to the U.S. Census Bureau, from 2009 to 2013, there was an average of roughly 115 million U.S. households. Extension cords are ubiquitous; a substantial majority of households likely owns at least one cord set. Although no published estimates of usage are available, the number of extension cord-owning households may exceed 100 million. Furthermore, in view of the large number of electrical items found in homes, many households likely have multiple cord sets for indoor and outdoor use.

Extension cords are generally low import value items. Based on the range of observed retail prices, most items probably have an import value (before distribution chain mark-ups) in the range of \$1.00 to \$10.00 per unit. Observed retail prices of extension cords range from a few dollars (for the least expensive indoor cord sets) to more than \$100 (for the largest outdoor cord sets). CPSC staff observed that typical per-unit retail pricing is roughly \$5.00 to \$10.00 for indoor cord sets, and \$15 to \$30 for outdoor cord sets. Extension cords represent a minor expenditure for most households.

Information on the numbers of indoor versus outdoor extension cords in use, and on the relative market share of each type, is not available. The indoor cord set dollar value market

share is undoubtedly much smaller than the unit share because indoor cord sets, on average, are much lower in price than outdoor cord models.

3. Estimated Voluntary Conformance

Recent data on extension cord recalls and import stoppages⁶ over the past decade show that relatively few of these products have been affected by enforcement actions. Fewer recalls occurred since 2004 (6 recalls involving 6 importers and 775,000 units) compared to the previous decade (23 recalls involving 22 importers and 2.5 million units); this is generally consistent with the observed decline in reported fire and shock incidents since the late 1980s. The 54 reported import shipment stoppages since 2004 involved 23 importers but only about 160,000 units. Assuming that the Compliance data present a reasonably accurate view of nonconformance, the 29 importers and roughly 1 million products that were either involved in recalls or otherwise identified as potentially violative over the entire last decade represent less than 3 percent of the possible 1,000 importers and an unknown but small percentage of all units sold.

Three testing organizations certify U.S. market extension cords as conforming to UL 817: UL; Intertek Co. (ETL); and CSA Group (CSA, formerly known as the Canadian Standards Association). All three companies perform tests in accordance with the UL standard and sell listing mark rights to manufacturers, importers, or private labelers. Although some products may be defective and fail to conform even though the products carry a listing or certification mark, such incidents appear to be rare. Of the enforcement actions over the past decade described above, only one of the recalls and two of the import stoppages involved extension cords from importers who claim to offer only UL-conforming goods. For purposes of CPSC staff's analysis, all products carrying the UL, ETL, or CSA mark are presumed to be in conformance with UL

⁶ Staff Briefing Package, Tab D, Extension Cords: Product Recalls and Import Stoppages.

817. Leading major retailers appear to offer only UL-listed or similarly certified electrical products. Retailers' specifications may encourage many suppliers to offer only UL-conforming cord sets. Staff's review of retail store offerings and online catalogs and directories revealed two sellers of unlisted extension cords.

Direct data on shipments of conforming versus nonconforming extension cords are not available; however, an approximation of likely UL 817 conformance can be made based on the following points:

- Staff's review of online catalogs and directories revealed 20 to 25 major national brands of extension cords; such products are likely to represent a majority of all units sold for household use. All of these major brands are advertised to be UL-, ETL-, or CSA-listed. CPSC staff has identified only two domestic producers of cord sets that may not conform to UL 817 and has not identified any importers or other domestic manufacturers of unlisted cord sets.
- Major retailers appear to offer only products that conform to the UL standard; these retailers and their online affiliates account for an unknown but large proportion of extension cord sales.
- Available CPSC data on recalls and import violations suggest a very low incidence of defects and nonconformance, in the range of a few percent. A low number of violations is an indicator that conformance to the UL standard is likely very high. CPSC staff estimates that more than 90 percent of extension cords sold to consumers conform.

III. Description of the Proposed Rule

The proposed rule would add two new paragraphs in part 1120. Proposed § 1120.2(e) would define an "extension cord," also known as a "cord set," as a length of factory-assembled

flexible cord with an attachment plug or current tap as a line fitting and with a cord connector as a load fitting. Extension cords are used for extending a branch circuit supply of an electrical outlet to the power-supply cord of a portable appliance, in accordance with the National Electrical Code.[®] As defined in the proposed rule, the term applies to extension cords that are equipped with National Electrical Manufacturer Association (NEMA) 1-15, 5-15 and 5-20 fittings, and that are intended for indoor use only, or for both indoor and outdoor use. The term “extension cord” does not include detachable power supply cords, appliance cords, power strips and taps, and adaptor cords supplied with outdoor tools and yard equipment.

This definition is adapted from descriptions of extension cords defined in section 1 of UL 817. We intend to include within the scope of the proposed rule, indoor and outdoor general-use extension cords that can be used with many different types of electrical appliances. All in-scope products are covered by UL 817. Excluded from the definition are detachable power supply and appliance cords with non-NEMA fittings and adaptor cords supplied with outdoor tools and yard equipment because these are specific-purpose cords, rather than general-use cords. The products that would not be covered by proposed rule are not subject to UL 817, or they do not present the same risks of injury.

Proposed § 1120.3(d)(1) states that extension cords that lack the identified characteristics in accordance with the requirements specified in the relevant sections of UL 817 (sections 2, 9, 16, 19, 20, 21, 26, 30, 31, 32, 84, and 105) of UL 817 are deemed substantial product hazards under section 15(a)(2) of the CPSA:

- (i) Minimum wire size requirements in sections 2, 20, 21, 30, and 31 of UL 817;
- (ii) Sufficient strain relief requirements in sections 20, 30, and 84 of UL 817;
- (iii) Proper polarization requirements in sections 9, 19, 20, 30, 31, and 32 of UL 817;

- (iv) Proper continuity requirements in sections 16, 20, 30, and 105 of UL 817;
- (v) Outlet cover requirement (for indoor 2-wire parallel extension cords with polarized parallel-blade and -slot fittings) in sections 20 and 26 of UL 817; or
- (vi) Jacketed insulated cord requirement (for outdoor use extension cords) in section 30 of UL 817.

These characteristics and the UL 817 requirements are explained in more detail in sections I.B.2 (Table 2) and II.A of this preamble.

IV. Effect of the Proposed 15(j) Rule

Section 15(j) of the CPSA allows the Commission to issue a rule specifying that a consumer product or class of consumer products has characteristics whose presence or absence creates a substantial product hazard. Such a rule would not be a consumer product safety rule, and thus, would not trigger the statutory requirements of a consumer product safety rule. For example, a rule under section 15(j) of the CPSA does not trigger the testing or certification requirements under section 14(a) of the CPSA.

Although a rule issued under section 15(j) of the CPSA is not a consumer product safety rule, placing a consumer product on the substantial product hazard list in 16 CFR part 1120 would have certain ramifications. A product that is or has a substantial product hazard is subject to the reporting requirements of section 15(b) of the CPSA, 15 U.S.C. 2064(b). A manufacturer, importer, distributor, or retailer that fails to report a substantial product hazard to the Commission is subject to civil penalties under section 20 of the CPSA, 15 U.S.C. 2069, and is possibly subject to criminal penalties under section 21 of the CPSA, 15 U.S.C. 2070.

A product that is or contains a substantial product hazard also is subject to corrective action under sections 15(c) and (d) of the CPSA, 15 U.S.C. 2064(c) and (d). Thus, if the

Commission issues a final rule under section 15(j) for extension cords, the Commission could order the manufacturer, importer, distributor, or retailer of extension cords that do not contain one or more of the identified readily observable characteristics to offer to repair or replace the product or to refund the purchase price to the consumer.

A product that is offered for import into the United States and is or contains a substantial product hazard shall be refused admission into the United States under section 17(a) of the CPSA, 15 U.S.C. 2066(a). Additionally, CBP has the authority to seize certain products offered for import under the Tariff Act of 1930 (19 U.S.C. 1595a) (Tariff Act), and to assess civil penalties that CBP, by law, is authorized to impose. Section 1595a(c)(2)(A) of the Tariff Act states that CBP may seize merchandise, and such merchandise may be forfeited if: “its importation or entry is subject to any restriction or prohibition which is imposed by law relating to health, safety, or conservation and the merchandise is not in compliance with the applicable rule, regulation, or statute.” Thus, if the proposed rule is finalized, extension cords that violate the rule are subject to CBP seizure and forfeiture.

V. Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act (RFA) requires that proposed rules be reviewed for the potential economic impact on small entities, including small businesses. 5 U.S.C. 601-612. Section 603 of the RFA requires agencies to prepare and make available for public comment an Initial Regulatory Flexibility Analysis (IRFA), describing the impact of the proposed rule on small entities and identifying impact-reducing alternatives. The requirement to prepare an IRFA does not apply if the agency certifies that the rulemaking will not have a significant economic impact on a substantial number of small entities. *Id.* 605. Because the Commission expects that

the economic effect on all entities will be minimal, the Commission certifies that the proposed rule will not have a significant economic impact on a substantial number of small entities.

Small Entities to Which the Proposed Rule Would Apply

ITC statistics indicate that about 11,000 companies are involved in import trade of products covered under an aggregate HTS code 8544.42.9000 that includes extension cords. The category includes imports of communications cables and many other electrical products and components and counts shipping companies, as well as product sellers. An unknown percentage of these 11,000 firms import items that would be within the scope of the proposed rule on extension cords. The proportion may be small; however, even if only 10 percent were subject to the proposed rule, the number of firms would still be substantial at more than 1,000. The latest available (2011) Census of Manufacturers data from the U.S. Department of Commerce indicate that there are about 400 domestic producers of miscellaneous electrical equipment, including flexible cord and cord sets (North American Industry Classification System (NAICS) code 335999). Based on contacts with industry representatives and a review of online listings, CPSC staff has identified only four firms that manufacture consumer-market extension cords in the United States. Three of these four companies appear to be small businesses.

CPSC staff has identified about 20 to 25 leading importers and one large U.S. manufacturer of extension cords. Some of the leading importers are large general merchandise or building material retailers with their own branded cord sets. Other firms among the top 20 to 25 importers are national brand owners who specialize in wire/cable and related electrical products; these firms are not as large as the major retailers, but would not be considered small under U.S. Small Business Administration (SBA) size standards. Most of the remaining firms

are likely small businesses. The total number of small firms is unknown, but may be in the hundreds or even a thousand.

Manufacturers and importers of extension cords typically also market various kinds of electrical or other household products. CPSC staff has identified no companies that market only extension cords. Some smaller importers may not consistently market the same brands of cord sets or import from the same supply sources from year to year.

Potential Impact of the Proposed Rule

A proposed rule designating extension cords that do not conform to any one of the five specified provisions of UL 817 as a substantial product hazard will not likely have a significant impact on a substantial number of small businesses or other small entities. This conclusion is based on the following evidence:

- CPSC staff estimates that a very high percentage, probably in excess of 90 percent, of extension cords already conform to UL 817. CPSC staff's examination of products sold by physical and online retailers identified only two sellers of products that did not carry a certification mark or label from one of the three certifying organizations. Manufacturers, importers, distributors, and retailers that market only conforming products would not experience any impacts under the proposed rule. Thus, a substantial majority of firms, including small firms, would be unaffected by the proposed rule and would probably experience zero economic impact.
- To the extent that small importers may market nonconforming cord sets, such firms may market other flexible cord or related products as well. CPSC staff is aware of no firms whose revenues are dependent solely on extension cords. Small importers could either discontinue marketing nonconforming extension cords, or these

importers could acquire conforming products. Conforming cord sets are readily available at similar prices, so small importers' incomes would not be significantly affected by the proposed rule, if the firms chose to acquire conforming products. Moreover, product lines should not be significantly curtailed if the firms ceased marketing extension cords altogether. It is unknown whether or how the two small, domestic manufacturers of cord sets that may not conform would be impacted by the proposed rule.

- The proposed rule reflects the existing practice of the CPSC's Office of Compliance and Field Operations to designate extension cords that use undersized wiring, have insufficient strain relief, or lack polarized plugs, electrical continuity, outlet covers, or cord jackets, as substantial product hazards. CPSC staff would continue to seek recalls or other enforcement actions for such products, regardless of the rule's existence.

VI. 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 deem extension cords that do not contain one or more of the identified readily observable characteristics to be a substantial product hazard 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).

VII. Paperwork Reduction Act

The proposed rule does not require anyone to create, maintain, or disclose information. Thus, no paperwork burden is associated with the proposed rule, and the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) does not apply.

VIII. Preemption

The proposed rule under section 15(j) of the CPSA would not establish a consumer product safety rule. Accordingly, the preemption provisions in section 26(a) of the CPSA, 15 U.S.C. 2075(a), would not apply to this rule.

IX. 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). The Commission proposes that any extension cord that does not conform to the specified sections of UL 817 regarding minimum wire size, sufficient strain relief, proper polarization, proper continuity, outlet covers (indoor extension cords), and jacketed insulated cord (outdoor extension cords), be deemed a substantial product hazard effective 30 days after publication of a final rule in the *Federal Register*. After that date, all extension cords that are subject to, but do not comply with, UL 817 regarding the identified readily observable characteristics, will be deemed to be a substantial product hazard.

The Commission believes that a 30-day effective date is appropriate because substantial conformance exists and because there is longstanding knowledge among importers and manufacturers about the requirements in UL 817. The Office of Compliance sent a letter dated January 9, 2015, to manufacturers, importers, distributors, and retailers of extension cords, informing them that the Office of Compliance considers products that do not conform to UL 817,

regarding minimum wire size, sufficient strain relief, proper polarization, proper continuity, covers for outlets (indoor use), and jacketed cords (outdoor), to be defective and present a substantial product hazard. Accordingly, relevant stakeholders are on notice of the requirements of UL 817. Moreover, importers likely will have ample time and opportunity to acquire conforming products, if necessary, from suppliers within normal business cycles before a final rule is promulgated. Based on the available information, the Commission concludes that a 30-day effective date would not likely result in significant impacts on industry or disrupt the supply of conforming products.

X. Incorporation by Reference

The Commission proposes to incorporate by reference certain provisions of UL 817. The Office of the Federal Register (OFR) has regulations concerning incorporation by reference. 1 CFR part 51. The OFR recently 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. 1 CFR 51.5(a).

In accordance with the OFR's requirements, section I.B.2. of this preamble summarizes the provisions of UL 817 that the Commission proposes to incorporate by reference. Interested persons may purchase a copy of UL 817 from UL, Inc. at 333 Pfingsten Road, Northbrook, IL 60062. The standard is also available for purchase from UL's website at <http://ulstandards.ul.com/access-standards/>. One may also inspect a copy at CPSC's Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923.

XI. Request for Comments

The Commission invites interested persons to submit their comments to the Commission on any aspect of the proposed rule. Comments should be submitted as provided in the instructions in the ADDRESSES section at the beginning of this notice.

List of Subjects in 16 CFR Part 1120

Administrative practice and procedure, Clothing, Consumer protection, Cord sets, Extension cords, Household appliances, Lighting, Infants and children, Imports, Incorporation by reference.

For the reasons stated above, and under the authority of 15 U.S.C. 2064(j), 5 U.S.C. 553, and section 3 of Public Law No. 110-314, 122 Stat. 3016 (August 14, 2008), the Consumer Product Safety Commission proposes to amend 16 CFR part 1120 as follows:

PART 1120 – SUBSTANTIAL PRODUCT HAZARD LIST

1. The authority citation for part 1120 continues to read as follows:

Authority: 15 U.S.C. 2064(j).

2. In § 1120.2, add paragraph (e) to read as follows:

§ 1120.2 Definitions.

* * * * *

(e) *Extension cord (also known as a cord set)* means a length of factory-assembled flexible cord with an attachment plug or current tap as a line fitting and with a cord connector as a load fitting. Extension cords are used for extending a branch circuit supply of an electrical outlet to the power-supply cord of a portable appliance, in accordance with the National Electrical Code.[®] For purposes of this rule, the term applies to extension cords that are equipped

with National Electrical Manufacturer Association (NEMA) 1-15, 5-15 and 5-20 fittings, and that are intended for indoor use only, or for both indoor and outdoor use. The term “extension cord” does not include detachable power supply cords, appliance cords, power strips and taps, and adaptor cords supplied with outdoor tools and yard equipment.

3. In § 1120.3, add paragraph (d) to read as follows:

§ 1120.3 Products deemed to be substantial product hazards.

* * * * *

(d)(1) Extension cords that lack one or more of the following specified characteristics in conformance with requirements in sections 2, 9, 16, 19, 20, 21, 26, 30, 31, 32, 84, and 105 of Underwriters Laboratories (UL) *Standard for Cord Sets and Power-Supply Cords*, UL 817, 11th Edition, dated March 16, 2001, revised February 3, 2014 (UL 817):

- (i) Minimum wire size requirement in sections 2, 20, 21, 30, and 31 of UL 817;
- (ii) Sufficient strain relief requirement in sections 20, 30, and 84 of UL 817;
- (iii) Proper polarization requirement in sections 9, 19, 20, 30, 31, and 32 of UL 817;
- (iv) Proper continuity requirement in sections 16, 20, 30, and 105 of UL 817;
- (v) Outlet cover requirement (for indoor 2-wire parallel extension cords with polarized parallel-blade and -slot fittings) in sections 20 and 26 of UL 817; or
- (vi) Jacketed insulated cord requirement (for outdoor use extension cords) in section 30 of UL 817.

(2) The Director of the Federal Register approves the incorporations by reference in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. You may obtain a copy from UL, Inc., 333 Pfingsten Road, Northbrook, IL 60062. You may inspect a copy at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda,

MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

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

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