



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

**MEMORANDUM**

**DATE:** November 27, 1996

**TO :** The Commission  
 Sadye E. Dunn, Secretary

**FROM :** Eric Rubel, General Counsel *ER*  
 Stephen Lemberg, Asst. General Counsel *AP*  
 Harleigh Ewell, Attorney, GCRA (Ext. 2217) *HE*

**SUBJECT:** Commission Options on Petition CP 96-1 to Amend the Safety Standard for Cigarette Lighters to Include Multi-Purpose Lighters -- Draft Advance Notice of Proposed Rulemaking

Attached is a draft advance notice of proposed rulemaking ("ANPR") for the Commission's consideration in connection with its decision on what action to take concerning Petition CP 96-1, a request to amend the Safety Standard for Cigarette Lighters to include multi-purpose lighters. A staff briefing package on that petition was forwarded to the Commission on November 26, 1996. The attached ANPR has been approved by the staff.

Attachment

NOTE: This document has not been reviewed or accepted by the Commission.  
 Initial rlh Date 11/27/96

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**CONSUMER PRODUCT SAFETY COMMISSION**

16 CFR Part 1210

**Multi-Purpose Lighters**

**Advance Notice of Proposed Rulemaking; Request for Comments  
and Information**

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Advance notice of proposed rulemaking.

**SUMMARY:** The Commission has reason to believe that unreasonable risks of injury and death may be associated with multi-purpose lighters that can be operated by children under age 5. Multi-purpose lighters are butane-fueled lighters with an extended nozzle from which the flame is emitted. These lighters typically are used to light devices such as charcoal and gas grills and fireplaces. The Commission is aware of 53 fires from January 1988 through October 1996 that were started by children under age 5 using multi-purpose lighters. These fires resulted in 10 deaths and 24 injuries. This advance notice of proposed rulemaking ("ANPR") initiates a rulemaking proceeding under the

authority of the Consumer Product Safety Act ("CPSA"). One result of the proceeding could be the promulgation of a rule mandating performance standards for the child-resistance of the operating mechanism of multi-purpose lighters.

The Commission solicits written comments from interested persons concerning the risks of injury and death associated with multi-purpose lighters, the regulatory alternatives discussed in this notice, other possible means to address these risks, and the economic impacts of the various regulatory alternatives. The Commission also invites interested persons to submit an existing standard, or a statement of intent to modify or develop a voluntary standard, to address the risks of injury and death described in this notice.

**DATE:** Written comments and submissions in response to this notice must be received by the Commission by [insert date that is 60 days after publication].

**ADDRESS:** Comments should be mailed, preferably in five (5) copies, to the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207-0001, or delivered to the Office of the Secretary, Consumer Product Safety Commission, Room 502, 4330 East-West Highway, Bethesda, Maryland; telephone (301) 504-0800. Comments should be captioned "ANPR for Multi-Purpose Lighters."

**FOR FURTHER INFORMATION CONTACT:** Barbara Jacobson, Directorate for Epidemiology and Health Sciences, Consumer

Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0477, ext. 1206.

**SUPPLEMENTARY INFORMATION:**

**A. Background**

Multi-purpose lighters are butane-filled lighters with an extended nozzle, typically 4 to 8 inches long, from which the flame is emitted. The long nozzle allows the user to reach hard-to-light places and also keeps the user's hand away from the flames. Multi-purpose lighters are usually nonrefillable. The lighters are activated by applying pressure to a trigger or button mechanism, which initiates fuel flow and causes a piezo-electric spark. They are most commonly used to light charcoal or gas grills and fireplaces. The lighters also are used to light campfires, camp stoves, LP gas ranges in recreational vehicles, and pilot lights in household gas appliances. Most multi-purpose lighters now sold include some type of on/off switch. Usually, this is a two-position slider-type switch that must be in the ON position before the lighter can be activated.

On July 12, 1993, the Commission published a consumer product safety standard that requires disposable and novelty *cigarette* lighters to have a child-resistant mechanism that makes the lighters difficult for children under 5 years old to operate.<sup>1</sup> 16 CFR 1210. The standard excludes lighters that are primarily intended for igniting materials other

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<sup>1</sup> 58 FR 37554. The standard became effective July 12, 1994.

than cigarettes, cigars, and pipes. Based on the information currently available to the Commission, multi-purpose lighters are not primarily intended for igniting tobacco, and thus are not subject to the cigarette lighter standard. This conclusion could change if additional information shows use or distribution patterns showing an intent for use to ignite tobacco products.

During the development of the cigarette lighter standard, the Commission was not aware of any data indicating that multi-purpose lighters presented an unreasonable risk of injury. The on/off switch currently provided on multi-purpose lighters would not comply with the requirements for child-resistance in the cigarette lighter standard, since it is easy for young children to operate and does not reset to the OFF position automatically after each operation of the ignition mechanism of the lighter. 16 CFR 1210.3(b)(1).

In February 1996, Judy L. Carr petitioned the Commission to "initiate Rulemaking Proceedings to amend 16 CFR 1210 Safety Standard for Cigarette Lighters to include the Scripto® Tokai Aim 'n Flame™ disposable butane 'multi-purpose' lighter within the scope of that standard and its child resistant performance requirements." The petitioner provided information about eight incidents associated with the Aim 'n Flame™ lighter. One of the incidents involved the petitioner's child. Information about the other incidents

was obtained through discovery in the petitioner's litigation with the product's manufacturer.

The petitioner's 4-year-old daughter was burned over 60 percent of her body when a 6-year-old boy triggered the lighter and ignited her clothing. The petitioner stated that the 6-year-old child was at a 3 to 4-year-old developmental level due to Downs Syndrome. The other seven incidents, all involving the Scripto® Tokai Aim 'n Flame™ lighter, occurred over the 6-year period from 1988 through 1993. In all, the eight incidents resulted in property damage, burn injuries to three children and one adult, and one death. In an incident where a 4-year-old child died, the fire was started by his 5-year-old brother.

The petitioner alleged that the Aim 'n Flame's™ "gun-like shape and trigger with trigger guard makes it more attractive than a cigarette lighter as a play object." The petitioner highlighted information in four of the incidents provided with the petition that referenced the "gun-like" nature of the lighter. The petitioner also alleged that repeated operation of the trigger will cause the on/off switch to move from the OFF position to the ON position and that the on/off switch is easier to disengage than to engage.

On May 7, 1996, the Commission published a **Federal Register** notice soliciting comments on topics related to issues raised by the petition. The Commission received a

total of nine comments, including four from lighter importers and one from the Lighter Association, Inc.

#### **B. Incident Data**

The Commission's staff searched all relevant CPSC data bases since 1985, when multi-purpose lighters first entered the market, to identify fires started with these lighters by children under 5 years old. These data sources included consumer complaints, newspaper clippings, death certificates, hospital emergency-room-treated injuries, and investigation reports. All incidents involving fires started by children under five that were submitted by the petitioner or by persons commenting on the May 7, 1996, **Federal Register** notice are included in the analysis.

The Commission knows of 53 reported incidents involving fires started with multi-purpose lighters by children under age 5 from January 1988 through October 1996. These fires resulted in 10 deaths and 24 injuries. Although many of the reports did not indicate the amount of property damage, 12 reports cited property damage that exceeded \$50,000. Two additional incidents involved fires started by older children (ages 5 and 6) with Downs Syndrome, a condition that affects mental development. These children, while over 5 years old, might have been protected by a child-resistant lighter.

Children under age 5 typically are incapable of extinguishing a fire, which puts them and their families at

special risk of injury. Almost all of the 10 fatalities were the children who started the fires. At least 3 of the 24 injured persons required hospitalization for treatment. One 15-month-old infant was hospitalized for second and third degree burns over 80 percent of his body, after his 3-year-old brother ignited the playpen in which the infant was sleeping.

Among the 49 fires where the sex of the fire starter was known, 5 were girls and 44 were boys. Many of the children found the multi-purpose lighters in easily accessible locations, such as on kitchen counters or furniture tops. Others, however, obtained the lighters from more inaccessible locations, such as high shelves or cabinets, where parents tried to hide them. Three investigation reports indicated that the children involved (ages 3 and 4) demonstrated that they could operate the on/off switch.

Five or fewer fires from young children using multi-purpose lighters were reported each year from 1988 through 1994. In 1995, however, 11 fires from this cause were reported; these resulted in 3 injuries and 2 deaths. During 1996, through October, 22 such fires have resulted in 15 injuries and 4 deaths. And, there are likely additional fires, deaths, and injuries from this cause, since some multi-purpose lighter fires are reported only as "lighter" fires. In seven incidents, the involvement of a multi-



purpose lighter was known only because there was a follow-up investigation.

The apparent increase in the number of fires may be related, in part, to the increase in sales of multi-purpose lighters. As discussed below, there were 1 million of these lighters sold in 1985. Since then sales have risen steadily. Total industry sales for 1995 were estimated at 16 million lighters.

Given the relatively limited number of known incidents, it is not possible to make a national estimate of the total number of fires and casualties at this time.

### **C. Market Information**

*The Product.* The consumer type of multi-purpose lighter is sold at retail for \$2.50 to \$8 each, with an average retail price of about \$4. Another type of multi-purpose lighter has additional features, such as refillable fuel chambers, flexible extended nozzles, and piezo-electric spark mechanisms powered by replaceable batteries. These lighters retail for about \$40 and are most likely to be used in commercial applications, such as during installation or repair of gas appliances. This lighter may not be a consumer product that would be subject to a mandatory standard.

*Manufacturers.* The largest marketer of multi-purpose lighters is Scripto® Tokai, which imports its lighters from Mexico. The Pinkerton Group Inc. (Cricket® Lighters) imports its lighters from the Philippines. Both of these firms are

members of the Lighter Association, Inc., a trade association located in Washington, D.C. About a dozen other firms market multi-purpose lighters under private labels. All of these privately labeled -lighters are produced by two Chinese manufacturers.

*Sales.* Multi-purpose lighters were introduced to the U.S. market in 1985, and about 1 million units were sold in the first year. Since 1985, sales have risen steadily. Scripto® Tokai estimated total industry sales of 16 million units for 1995. Scripto® Tokai and the Lighter Association, Inc., estimated total industry sales in excess of 100 million units since their introduction. These industry sources expect sales of multi-purpose lighters to continue to increase, at the rate of 5-10 percent annually, for the foreseeable future. For 1996, sales are projected at 17 to 18 million.

*Lighters In Use.* The service life of multi-purpose lighters depends on how they are used. Lighters used seasonally for fireplaces or for camping may have useful lives of two years or more. If used in everyday applications, the useful life would be similar to that of disposable butane lighters—i.e., less than one year. Based on an average useful life of one to two years and a linear estimation of sales growth from 1985 forward, there were an estimated 23-36 million multi-purpose lighters available for use at the end of 1995.

*Product Substitutes.* Readily available substitutes for multi-purpose lighters include matches and disposable butane lighters. The closest substitutes are probably long-stem matches, sometimes called fireplace matches. However, fireplace matches are substantially more costly per light than multi-purpose lighters. These matches commonly retail for about \$5 for a box of 50, or 10 cents per light (\$5/50 lights). This compares to an average retail price of \$4 for a multi-purpose lighter, or 0.4 cents per light (\$4/1000 lights). Although disposable butane lighters cost less per light than multi-purpose lighters, at 0.1 cents per light (\$1/1000 lights), they do not have features that allow the user to reach hard-to-light places or keep the user's hand away from the flames.

*Preliminary Economic Considerations Regarding a Child-Resistant Mechanism.* The Commission knows of 11 fires, 3 injuries, and 2 deaths from fires started during 1995 associated with children under age 5 using multi-purpose lighters. These incidents had an estimated societal cost of about \$10.3 million. If there were fires from this cause that are not known to the Commission, the actual societal cost, and the cost per lighter, of these fires would be higher.

It is unlikely that a child-resistant feature would eliminate all fires started by young children with multi-purpose lighters. In practice, some children would likely be

able to operate even lighters that have a child-resistant mechanism.

Several factors determine the range of benefits that would result from including a child-resistant feature on multi-purpose lighters. One important factor is the reduction that could be achieved in the ability of young children to start fires by playing with these lighters. This reduction would be based on the expected improvement in the child-resistance of multi-purpose lighters caused by the child-resistant feature. By applying the same methodology the Commission used to estimate the incident reduction for child-resistant cigarette lighters, the Commission preliminarily estimates that requiring a child-resistant feature on multi-purpose lighters would reduce these fire incidents by between 73 and 82 percent.<sup>2</sup>

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<sup>2</sup> An initial estimate of the extent to which non-child-resistant multi-purpose lighters may resist operation by young children can be calculated from tests that were performed with children using non-child-resistant disposable cigarette lighters. That testing showed that 55 percent of children were able to operate non-child-resistant "roll and press" cigarette lighters ("baseline" child-resistance of 45 percent), and 84 percent were able to operate non-child-resistant "push-button" (including peizo-electric) cigarette lighters (baseline child-resistance of 16 percent). Similar tests have not been performed for multi-purpose lighters, but the Commission assumes for present purposes that the results would be within the range of those derived for cigarette lighters.

The minimum percent reduction in fires and resulting deaths and injuries would occur if all lighters just barely passed at the specified pass/fail criteria, which for cigarette lighters is 85 percent. The minimum percent reduction thus is calculated as follows:

$$\% \text{reduction} = \frac{[(\% \text{ pass/fail criteria}) - (\% \text{ baseline CR})]}{100} \times 100$$

Another important factor in calculating the benefits per lighter from a child-resistant requirement for multi-purpose lighters is the useful life of such lighters. If multi-purpose lighters have a 1-year useful life, then there were 23 million such lighters in use in 1995. And, each of these 23 million lighters had an expected accident cost of about \$0.45 (\$10.3 million in societal costs ÷ 23 million lighters). If child-resistant multi-purpose lighters are 73 percent effective in reducing incidents, the benefits will be about \$0.33 per lighter (\$0.45 in accident costs × .73). If the lighters are 82 percent effective in reducing incidents, the benefits will be about \$0.37 per lighter (\$0.45 in accident costs × .82).

If these lighters have a 2-year useful life, then there were 36 million multi-purpose lighters in use. And, each lighter had an expected accident cost of about \$0.57 (\$10.3 million ÷ 36 million, for each of 2 years). Under this useful life assumption, the benefits will be about \$0.42 per lighter that is 73 percent effective in reducing incidents (\$0.57 in accident costs × .73), and about \$0.47 per lighter

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(100 - % baseline CR)

Therefore, the estimated injury reduction for push-button lighters would be 82 percent  $[(85-16)(100)/(100 - 16)]$ . The estimated injury reduction for roll-and-press lighters would be 73 percent  $[(85-45)(100)/(100-45)]$ . In reality, the child-resistance performance of many lighters may be substantially better than the pass/fail criteria. Therefore, the actual injury and death reductions may be significantly greater than estimated.

that is 82 percent effective (\$0.57 in accident costs × .82).

Industry sources estimate that a safety device that would comply with the requirements of the cigarette lighter standard could add \$0.20 to \$0.40 to the retail price of a multi-purpose lighter. This relatively high cost is attributed to the difficulty in designing a safety feature that would provide enough fuel to allow ignition at the end of the nozzle.

Thus, the preliminary estimate of the potential benefits, using 1995 data, are \$0.33 to \$0.47 per lighter, compared to the estimated costs, noted above, of \$0.20 to \$0.40 per lighter.

Incomplete data for 1996 show 22 fires, 15 injuries, and 4 deaths, for a societal cost of \$20.5 million, with sales that are projected at 17 to 18 million multi-purpose lighters. Therefore, the range of potentially achievable benefits per lighter based on the reported cases for 1996 through October—using the same methodology as above, including the .73 to .82 range of injury reduction—would be \$0.65 to \$0.93. Additionally, it is likely that national estimates of fires and casualties would be still greater than the number of incidents known for both 1995 and 1996. And, the lighters' child-resistance may substantially exceed the standard's minimum requirement in many cases. Thus, the potential benefits are likely to be higher than estimated.

The costs per lighter of adding child-resistance to all multi-purpose lighters produced in 1996, however, would be the same as for 1995. The total cost for providing the feature in 1996 would be only 5 to 10 percent greater than in 1995, reflecting the increase in the number of lighters produced. Thus, using 1996 data, benefits would likely far exceed costs.

**D. Issues Raised by the Petitioner**

1. **Issue:** *Manufacturer's Information.* The petitioner stated that Scripto® Tokai Corporation possessed critical fire and injury data concerning multi-purpose lighters that would have been useful to the Commission during development of the Safety Standard for Cigarette Lighters.

**Response:** Based on summary information submitted by the petitioner, Scripto® Tokai was aware of four fires started by young children with Aim 'n Flame™ lighters prior to publication of the Safety Standard for Cigarette Lighters on July 12, 1993. Two of these fires resulted in burn injuries, and two resulted in property damage. None of the incidents involved a death. The fact that Scripto® Tokai did not communicate information on these incidents to the Commission at that time did not affect the Commission's decision to grant Ms. Carr's petition for multi-purpose lighters.

2. **Issue:** *"Gun-Like" Shape.* The petitioner stated that the Aim 'n Flame's™ "'gun-like' shape and trigger with trigger guard makes it more attractive than a cigarette

lighter as a play object." The petitioner highlights information in four of the incidents provided with the petition that reference the "gun-like" nature of the lighter.

**Response.** The Commission's human factors experts believe that, for some children, the combination of the "toy-like" shape of multi-purpose lighters and the size of the flame could enhance the attractiveness of these lighters over ordinary cigarette lighters or matches.

The appeal and attractiveness of the Aim 'n Flame™ and other multi-purpose lighters to children is based, in part, on the lighters' toy-like appearance. Available incident data indicate some children were first attracted to the product because of its shape. In one incident, a 3-year-old boy saw the lighter on a basement workbench and thought it was a toy gun. His mother reported the child called it a "trigger gun."

In addition to the shape, the flame of multi-purpose lighters is also an attractive feature to children. Children's curiosity about fire is a normal stage in their development. Fire appeals to young children because it is bright, warm, and exciting. In the case of multi-purpose lighters, the flame produced is larger than those of ordinary cigarette lighters. This may heighten the multi-purpose lighter's appeal to children.



Thus, all multi-purpose lighters produce a flame that appeals to children. Furthermore, multi-purpose lighters other than the particular model addressed by the petitioner have been involved in fire incidents. Accordingly, this rulemaking applies to all multi-purpose lighters.

3. **Comment:** *On/off switch.* The petitioner stated that Scripto® Tokai has not notified the Commission under Section 15(b) of the Consumer Product Safety Act ("CPSA") that the Aim 'n Flame™ contains a defect that could create a substantial product hazard. The petitioner alleged that repeated operation of the trigger will cause the on/off switch to move from the OFF position to the ON position and that the on/off switch is easier to disengage than to engage.

**Response:** The issue of whether the Aim 'n Flame™ contains a defect because of these aspects of the on/off switch will be considered as a separate matter by the Commission's Office of Compliance.

**E. Comments Received in Response to the May 7, 1996, Federal Register Notice**

The Commission received nine comments in response to the May 7, 1996, **Federal Register** notice. Commenters included: lighter importers Scripto® Tokai, Pinkerton Group Inc. (Cricket®), Colibri Corporation, and Calico Brands, Inc.; the Lighter Association, Inc.; Vinson & Elkins, the petitioner's attorneys; Ms. Diane L. Denton, the petitioner

for the cigarette lighter standard; Mr. Davis S. Carson, an attorney; and Dr. John O. Geremia, a lighter expert. Copies of the comments are available upon request from the Office of the Secretary.

Scripto® Tokai and Cricket®, both members of the Lighter Association, Inc., currently import multi-purpose lighters. Mr. Carson, Ms. Denton, and Calico Brands, Inc., wrote in support of including multi-purpose lighters in the current standard. The Commission's responses to the particular comments are given below.

1. **Comment:** *Incidents Limited to One Product.* The Pinkerton Group, Inc., commented that the incidents appear to be limited to one particular product on the market and questioned whether a rulemaking proceeding for all multi-purpose lighters was warranted.

**Response:** One manufacturer, who represents approximately 90 percent of U.S. sales, accounted for 20 of the 25 fires in which the product was identified. The other 5 fires were associated with other manufacturers' lighters, establishing that the incidents are not limited to one product alone.

2. **Comment:** *Risk Associated with Multi-Purpose Lighters.* Scripto® Tokai and the Lighter Association, Inc., commented that there are very few fire incidents involving multi-purpose lighters relative to the number of units sold,

and that these lighters present an extremely low risk compared to other open flame products.

**Response:** At this time, fire data involving multi-purpose lighters are obtained from sources that cannot be used to calculate a national estimate of the fire hazard or the per-unit risk associated with multi-purpose lighters. Even if the per-unit risk was identical for lighters, matches, and multi-purpose lighters, however, there would be many times more fires with matches and lighters, solely because of the larger number of these products in use. Yet, it appears that there may be a reasonable cost-effective standard for multi-purpose lighters that can reduce the risk from these products.

The relative risks of open-flame devices are discussed in the response to the next comment.

3. **Comment:** *Consumers Will Switch to More Dangerous Matches.* Scripto® Tokai states:

some consumers are switching to less safe means of lighting tobacco products, such as matches.... [T]he number of fires started by children using matches has not declined and in fact may have even increased since the adoption of 16 CFR, Part 1210 [the Safety Standard for Cigarette Lighters].... More fires are started each year by children playing with matches than with any other source.

The Lighter Association, Inc. states, "[t]he difficulty in using child-resistant multi-purpose lighters may cause some users to move to long stem matches."

**Response:** Current data do not support the claim that more fires are started each year by children with matches than with any other source. In both 1993 and 1994, about the same number of child-play fires involved matches and lighters. In 1994, the most recent year for which fire data are available, matches were involved in an estimated 9,100 child-play fires, compared to 10,600 for lighters.

Because matches are not child-resistant, there is no reason to expect the number of child-play match fires to be declining. And, the Commission is not aware of any data that indicate that child-play fires have increased. As discussed in more detail below, the available data (through 1994) do not allow a determination of whether the number of child-play match fires has increased since the effective date of the Safety Standard for Cigarette Lighters—July 14, 1994.

The commenters did not provide any supporting evidence that consumers are switching from child-resistant lighters to matches. Additionally, non-child-resistant cigarette lighters present a greater risk than matches. A CPSC study conducted in the late 1980's used the number of lighters in accessible locations and the number of boxes or books of matches in such locations as a measure of exposure to the products. The study found that, using this measure of

exposure, lighters were 1.4 times as likely as matches to be involved in a child-play fire, 3.3 times as likely to be involved in a child-play death, and 3.9 times as likely to be involved in a child-play injury.

The Commission is finding that recently introduced child-resistant lighters are easier for adults to use than some of those sold when the rule first took effect. Based on this experience, the Commission believes that child-resistant mechanisms for multi-purpose lighters can be designed that are easy for most consumers to use. In addition, matches are a less convenient and more expensive source of flame. Accordingly, it is unlikely that many consumers would move from child-resistant multi-purpose lighters to long-stem matches.

4. **Comment:** *Requiring Multi-Purpose Lighters To Be Child-Resistant May Create Other Hazards.* Scripto® Tokai and the Lighter Association, Inc., commented that the automatic reset mechanism required for child-resistant cigarette lighters could be unsafe for multi-purpose lighters. The piezo-electric technology used in most multi-purpose lighters is not completely reliable in producing a flame each time it is activated. These commenters contend that the need to operate the child-resistant mechanism after each actuation could further delay ignition and increase the potential for mini-explosion or flashback fire from accumulated pressurized gas.

**Response:** The failure of piezo-electric mechanisms to light after each activation creates a potential for "mini explosion" or "flashback fire" under certain conditions. The probability and severity of this type of reaction depends on a number of variables, including whether the user turns the gas appliance on before obtaining a flame from the lighter (which seems unnecessary in any event), the length of time the gas flows, and the air circulation in the area where the gas is to be ignited. The addition of a properly designed child-resistant feature should not add significantly to the delay already inherent in the device. If the Commission decides to develop a rule to require multi-purpose lighters to be child-resistant, this issue will be carefully evaluated.

5. **Comment:** *Easy Operability of Multi-Purpose Lighters by Children.* Diane Denton, who in April 1985 petitioned for the current standard on cigarette lighters, stated that multi-purpose lighters are easier to operate than small, more common lighters.

**Response:** While there are no comparison data on the ease of operability between these types of lighters, available incident reports show how easy it is for young children to operate multi-purpose lighters, most of which have a piezo-electric mechanism. After one fire, a mother found that both of her children, ages 2 and 4, could operate the lighter with little difficulty. In another incident,

fire investigators asked a 3-year-old to demonstrate how he used the lighter. The child switched the ON/OFF switch to ON and pulled the trigger with one hand. The father said the ON/OFF switch was similar to that on some of his son's toys and the trigger pull action was similar to that of toy guns.

Also, among various types of non-child-resistant lighters tested during the development of the cigarette lighter standard, the piezo-electric mechanism was the easiest to operate. Forty-six out of 50 (92 percent) of the children on a test panel were able to operate the lighter. Multi-purpose lighters can easily be operated by children with one hand, while two hands are required for children to operate most disposable non-child-resistant lighters.

6. **Comment:** *Accessibility of Multi-Purpose Lighters to Children.* Scripto® Tokai claims that multi-purpose lighters are less accessible to children than disposable lighters and therefore, do not present a similar risk. According to Scripto® Tokai, multi-purpose lighters "are typically stored away in the same manner as tools or implements" and "are not carried in a pants or shirt pocket, or in a purse." In addition, Scripto® Tokai claims that multi-purpose lighters cost more than disposable lighters, and thus are "less likely to be left laying around."

**Response:** In the available reports of fire incidents, children found the multi-purpose lighters in a variety of locations, some easily accessible and others less

accessible. Multi-purpose lighters are sometimes stored in accessible locations convenient to their use. For example, a 2-year-old boy was burned with a multi-purpose lighter that he took off a hook near a fireplace in his grandmother's home.

Storing multi-purpose lighters in the same manner as tools does not necessarily make them inaccessible to children. In one incident, a 3-year-old boy took a multi-purpose lighter out of a relative's tool box and hid it in his toy box. Two weeks later he started a fire with the lighter in the family's living room. Children started fires with lighters that they retrieved from kitchen cabinets, the top of microwave ovens, a 6-foot-high cabinet, a garage shelf, a bathroom medicine chest, a bookcase, a bedroom dresser, a basement workbench, and the top of a water heater in a utility closet.

In addition, these devices are not necessarily "less likely to be left laying around" based on cost, as they are fairly inexpensive. In fact, in some of the incidents, the lighters were obtained free as part of a cigarette promotion. Further, since these lighters are not commonly carried in a pocket or purse, they are likely to be in their normal storage locations, some of which, as noted above, are accessible to children.

7. **Comment:** "*False Sense of Security.*" The Lighter Association, Inc., commented that "there is always the



possibility that parents and caretakers will be more careless with child-resistant lighters, erroneously thinking them child-proof." Similarly, Scripto® Tokai stated that child-resistant lighters "are viewed frequently as 'childproof' leading parents to a false sense of security."

**Response:** It is not likely that the issue of a "false sense of security" will prevent the expected reduction of child-play fires started with multi-purpose lighters. As detailed above, multi-purpose lighters are currently stored in accessible locations convenient to their use. Even when they are stored out of reach, in locations considered inaccessible, children seek them out.

The same argument about a "false sense of security" could be applied to child-resistant packaging used for drugs and household chemicals. However, an article published in the June 5, 1996, Journal of the American Medical Association, "The Safety Effects of Child-Resistant Packaging for Oral Prescription Drugs," demonstrates that child-resistant packaging has reduced childhood poisoning from oral prescription drugs for children under age 5 by about 45 percent since 1974, the year oral prescription drugs became subject to the child-resistant packaging requirements.

8. **Comment:** *Education and Supervision.* Scripto® Tokai commented that education and supervision are the "first line of defense" in lighter-related fires. They stated that

parents must be "repeatedly reminded to keep fire sources out of the reach of children, and never leave small children unsupervised." Scripto® Tokai further said warnings and labels must be used "to adequately inform consumers of applicable hazards." They claim that the Commission has ignored educational efforts and has narrowly focused on product design.

Colibri Corporation recommended that the Commission review educational materials on multi-purpose lighters.

Calico Brands, Inc., stated that they always place a label on their lighters and lighter packaging warning parents "to keep lighters out of the reach of children." However, they also acknowledge that they are aware the warning is not "foolproof" and that child-resistance is also necessary "to further protect the safety of our children."

The Lighter Association, Inc., stated that "ultimately the issue of fire safety is an issue of parental supervision." The Association recommended that the Commission consider whether this issue could be dealt with through educational efforts.

**Response:** Educational efforts, warning labels, and supervision are important. But, they are not the sole solution to the problem of child-play fires started with multi-purpose lighters. If a product can be designed at reasonable cost to address a hazard, that is the most effective approach.

Available information indicates that even when consumers were aware of the danger of these lighters and took precautions to keep them out of reach, children still managed to access the lighters. In some instances, it appeared that the lighter was normally stored in a relatively inaccessible space, but was not returned there after its latest use. This is a foreseeable scenario, since people can be expected to be forgetful.

Many children under age 5 are old enough to engage in play activities without being in the same room as a parent or guardian. At the time of the known incidents, the children were under reasonable levels of adult supervision. Fires were started while parents or guardians were in the house. One mother was downstairs fixing lunch at the time of the incident. In other cases, children started fires while a parent was showering or sleeping. These are also foreseeable scenarios, since people cannot be expected to stay in the same room as their children every moment of the day.

**9. Comment:** *Safety Standard for Cigarette Lighters.*

A number of comments were received about how the Safety Standard for Cigarette Lighters might relate to a rulemaking proceeding for multi-purpose lighters. These comments are discussed below.

a. *Effectiveness of the current cigarette lighter standard.* The Lighter Association, Inc., states that it is

not aware of any data available for 1994 or 1995 to demonstrate the effectiveness of the current standard.

**Response:** The most recent year for which complete fire data are available is 1994. However, since the current standard became effective July 12, 1994—as to lighters manufactured in or imported into the United States on or after that date—non-child-resistant lighters remained in the channels of distribution throughout 1994 and 1995. The full effect of the cigarette lighter standard will not be achieved until the non-child-resistant cigarette lighters made before July 12, 1994, are no longer in use. It will not be possible to fully evaluate the standard's effectiveness until the previously produced non-child-resistant lighters are used up and fire data for a period after then are available.

However, based on tests of non-child-resistant and child-resistant cigarette lighters, the Commission estimates the cigarette lighter standard will eliminate 80 to 105 (53 to 70 percent) of the 150 deaths each year resulting from young children playing with cigarette lighters. The rationale for the cigarette lighter standard appears to also support a child-resistant requirement for multi-purpose lighters. The Commission believes it would not be in the public interest to delay a standard for multi-purpose lighters until the effectiveness of the cigarette lighter standard can be fully evaluated. Such a delay would allow

the deaths and injuries associated with child-play with this product to continue unabated.

b. *Consumer resistance to the current standard.* The Lighter Association, Inc., commented that there is strong adverse consumer reaction to cigarette lighters that comply with the current child-resistance standard. Since the standard went into effect on July 12, 1994, member companies have received tens of thousands of letters complaining about how difficult it is to operate the new child-resistant lighters.

Scripto® Tokai commented that child-resistant lighters generated daily letters and phone calls from puzzled and upset consumers expressing their frustration and resistance to the inconvenience. According to the commenter, senior citizens and people with disabilities, such as arthritis, found the new lighters difficult to operate. Consumers without children complained there is no choice. Some consumers even found ways to disarm the lighters' child-resistant mechanisms.

**Response:** When the Safety Standard for Cigarette Lighters went into effect, some consumers wrote to CPSC expressing dissatisfaction and some manufacturers reported receiving complaints from consumers. This is similar to the initial reaction to the requirement for child-resistant packaging of prescription drugs under the Poison Prevention Packaging Act in the early 1970's. It appears that consumer

dissatisfaction with child-resistant cigarette lighters has lessened substantially, since the Commission now rarely receives complaint letters.

Additionally, child-resistant mechanisms have been evolving during the period the standard has been in effect. Originally, most of the lighters used some type of lock that could be disabled by moving a lever so that the lighter could then be actuated. These designs were sometimes cumbersome and, for some people, may have required the use of two hands. While some of these lighters are still on the market, the trend now is toward more subtle movements to overcome the child-resistant mechanism, such as pressure on the flint wheel or pressing a button to disable the lock. The Commission expects consumer resistance to be minimized by these new lighters, which are easy for adults to operate but are still highly child resistant.

*c. Products designed to defeat the child-resistant features of cigarette lighters.* The Lighter Association, Inc., Scripto® Tokai, and Colibri Corporation discussed products that have been marketed that are designed to override the child-resistant features of cigarette lighters. The Association provided a copy of a patent for such a product issued to two inventors in Cottonwood, Arizona. Scripto® Tokai stated that CPSC failed to take action against a particular device that is marketed for overriding the child-resistant features of cigarette lighters.

**Response:** Although the marketing of tools designed to override the child-resistant features of disposable lighters does not violate any Commission regulation, the Commission has requested the manufacturer of the device referred to by Scripto® Tokai to discontinue its marketing of the device. Increased consumer satisfaction with child-resistant lighters as the designs become easier to operate should drastically reduce if not eliminate the market for such products.

d. *CPSC enforcement of the cigarette lighter standard.* Without giving details, the Lighter Association, Inc., and Scripto® Tokai alleged that there were a number of violations of the stockpiling rule in the current cigarette lighter standard.<sup>3</sup> They believe that Chinese importers as a group brought in over 100 million non-child-resistant lighters above the permissible stockpiling limit. These commenters further claim that there are stores still stocking (and restocking) non-child-resistant lighters.

The Lighter Association, Inc., stated that some distributors apparently are buying child-resistant lighters,

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<sup>3</sup> Section 9(g)(2) of the CPSA, 15 U.S.C. 2058(g)(2), authorizes the Commission to issue rules prohibiting the stockpiling of products that are subject to a consumer product safety rule. Stockpiling means the manufacturing or importing of a product between the date of promulgation of a consumer product safety rule and its effective date at a specified rate that is significantly greater than the rate at which such product was produced or imported during a specified base period before the promulgation of the consumer product safety rule. A stockpiling rule was issued as part of the Safety Standard for Cigarette Lighters. 16 CFR Part 1210, Subpart C.

opening the master cartons, disengaging the child-resistant features, repacking the lighters, and selling the cartons at a substantial premium. Association members believe that some importers are fraudulently bringing in non-child-resistant lighters as child-resistant lighters using "contrived" testing or other ruses.

The Lighter Association, Inc., and Scripto® Tokai request tightening of the stockpiling requirements and stringent enforcement of any new rule relating to multi-purpose lighters.

**Response:** The Commission has aggressively enforced the requirements of both the safety standard and the anti-stockpiling provisions. In cooperating with the U.S. Customs Service, the Commission has prevented the importation of millions of non-child-resistant lighters. The Commission will continue to vigorously enforce the standards and to investigate any specific reports of possible noncompliance brought to its attention.

e. **Comment:** *Recommendations for requirements for multi-purpose lighters.* Scripto® Tokai stated that the lessons learned from the disposable cigarette lighter experience must be applied to any effort to regulate new products. This company makes the following recommendations if such a standard is undertaken:



- The standard should include all multi-purpose lighters, whether disposable or refillable, long or short, expensive or inexpensive, or novelty or otherwise.

- Acceptable child-resistant mechanisms should be clearly defined.

- All importers should be required to submit base period and monthly reports to CPSC on importation of both child-resistant and non-child-resistant lighters, including specific manufacturing source information.

- Actions should be taken to insure that importers do not circumvent the stockpiling rules, including working closely with the United States Customs Service and through diplomatic channels.

- Enforcement measures should be applied evenly.

Dr. Geremia questioned the validity of allowing the industry to conduct its own certification tests.<sup>4</sup> He suggested that testing be conducted by CPSC or an independent organization not paid directly by the importers.

Dr. Geremia also recommends that lighters identify the manufacturer's name and address and have a date code.

**Response:** The Commission does strive to evenly enforce all of its regulations, and routinely works with the U.S. Customs Service as well as other government agencies.

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<sup>4</sup> See the explanation of certification in the discussion of the CPSA in Section G of this notice, "Statutory Authority."

The Safety Standard for Cigarette Lighters requires manufacturers to certify compliance through a reasonable testing program which includes (1) qualification tests on surrogates (non-flame-producing versions) of each model of lighter produced, (2) development of a specification of the characteristics of the surrogates found to meet the child-resistance requirements, and (3) tests performed of lighters from production to demonstrate that they continue to meet the original specifications.

The Commission expects companies to be able to demonstrate that they have a reasonable testing program that evaluates whether their lighters are in compliance. It does not appear that the Commission has express authority to require that certification tests be performed by non-industry testers, particularly absent evidence that industry testing is inadequate. However, the Commission may conduct its own tests and take action against any product that does not comply. The Commission conducts tests using an independent testing organization where appropriate.

Other suggestions specific to an amendment involving multi-purpose lighters will be considered if the Commission proceeds to develop a proposed rule for multi-purpose lighters.

*f. Designs for child-resistant features for multi-purpose lighters.* Dr. Geremia commented that the following child-resistant designs should be considered:

(i) A trigger guard similar to those used on firearms, except it would remain attached to the unit in some way.

(ii) A design which requires the burner nozzle and handle to be pushed toward each other and then twisted in order for gas to flow.

(iii) A false trigger in the present location, with the real trigger hidden at the base of the handle.

**Response:** Suggestions specific to child-resistant designs for multi-purpose lighters will be considered if the Commission decides to develop a proposed rule for multi-purpose lighters. It should be noted, however, that the Safety Standard for Cigarette Lighters does not specify product designs. Any design that meets the performance requirements of the testing protocol is acceptable. This allows industry greater flexibility and provides for market-driven solutions.

#### **F. Existing Standards**

Multi-purpose lighters are subject to the labeling requirements of section 2(p) of the Federal Hazardous Substances Act ("FHSA"), 15 U.S.C.1261(p), because they contain a hazardous substance that is intended or packaged in a form suitable for use in the household. The required statements include: "DANGER -EXTREMELY FLAMMABLE" "CONTENTS UNDER PRESSURE" "Keep out of the reach of children."

The only other existing mandatory standard that the Commission is aware of that may be relevant to this

proceeding is the Safety Standard for Cigarette Lighters, which does not apply to lighters not primarily intended for lighting tobacco products. 16 CFR 1210.

**G. Statutory Authority for This Proceeding**

Three of the statutes administered by the Commission have at least some apparent relevance to the risk posed by non-child-resistant multi-purpose lighters. These are the Consumer Product Safety Act ("CPSA"), 15 U.S.C. 2051-2084; the Poison Prevention Packaging Act ("PPPA"), 15 U.S.C. 1471-1476; and the Federal Hazardous Substances Act ("FHSA"), 15 U.S.C. 1261-1278. In issuing its standard for cigarette lighters, the Commission decided to use the authority of the CPSA. A full explanation of the Commission's reasons for that decision was published in the **Federal Register** on July 12, 1993. 58 FR 37554. See also 58 FR 37557 (July 12, 1993). For the reasons stated in those notices, the Commission expects that any rule regarding the child-resistance of multi-purpose lighters also would be issued under the CPSA.

Before adopting a CPSA standard, the Commission first must issue an ANPR as provided in section 9(a) of the CPSA. 15 U.S.C. 2058(a). If the Commission decides to continue the rulemaking proceeding after considering responses to the ANPR, the Commission must then publish the text of the proposed rule, along with a preliminary regulatory analysis, in accordance with section 9(c) of the CPSA. 15 U.S.C.

2058(c). If the Commission then wishes to issue a final rule, it must publish the text of the final rule and a final regulatory analysis that includes the elements stated in section 9(f)(2) of the CPSA. 15 U.S.C. 2058(f)(2). And before issuing a final regulation, the Commission must make certain statutory findings concerning voluntary standards, the relationship of the costs and benefits of the rule, and the burden imposed by the regulation. CPSC § 9(f)(3), 15 U.S.C. 2058(f)(3).

#### **H. Regulatory Alternatives Under Consideration**

The Commission is considering alternatives to reduce the number of injuries and deaths associated with multi-purpose lighters. In addition to possible performance standards similar to those adopted for cigarette lighters, the potential for labeling requirements and information and education campaigns to reduce the risk will be considered. It is also possible that a voluntary standard could be developed that would adequately reduce the risk of child-play fires associated with this product. These alternatives are discussed below.

1. *Performance standard.* The Commission will consider issuing a mandatory performance standard for multi-purpose lighters similar to that for cigarette lighters.

2. *Labeling.* Labeling to warn of the risk of child-play fires from multi-purpose lighters could be required, either

instead of or in addition to a mandatory performance standard.

3. *Voluntary standards.* The Commission is not aware of any voluntary standards in effect that apply to the risk of children starting fires that is associated with this product. However, if such standards are developed and implemented, the Commission would take this into account in deciding whether a mandatory standard is necessary.

#### **I. Solicitation of Information and Comments**

This ANPR is the first step of a proceeding which could result in a mandatory performance or labeling standard for multi-purpose lighters to address the risk that young children will use these lighters to start fires. All interested persons are invited to submit to the Commission their comments on any aspect of the alternatives discussed above. In particular, CPSC solicits the following additional information:

1. The types and numbers of multi-purpose lighters currently sold to consumers;
2. The names and addresses of manufacturers and distributors of the product;
3. The number of persons injured or killed in fires started by children under the age of 5 years using multi-purpose lighters;
4. The circumstances under which these injuries and deaths occur, including the ages of the children who started

the fires, the ages of the victims, the locations from which the children obtained the lighters, and physical descriptions of the products involved (including identification of the manufacturers and models, if available);

5. An explanation of designs that could be adapted to multi-purpose lighters to increase their child-resistance;

6. Characteristics of the product that could or should not be used to define which products might be subject to the requested rule;

7. Other information on the potential costs and benefits of the requested rule;

8. Steps that have been taken by industry or others to reduce the risk of injuries from the product;

9. The likelihood and nature of any significant economic impact on small entities;

10. The extent to which consumers turn on the gas flow to appliances before lighting a lighter or match to ignite the appliance;

11. The likely effects on fire incidents and on the multi-purpose lighter market of possible design changes to multi-purpose lighters;

12. The results of any tests on the child-resistance of multi-purpose lighters, whether or not the lighter has features intended to increase child-resistance;

14. The reasons why multi-purpose lighters sometimes require repeated actuations in order to light, and ways the performance of the lighters could be improved in this regard;

15. Designs of child-resistant lighters that would allow repeated actuations of the lighter without substantially delaying ignition compared to non-child-resistant lighters; and

16. The costs and benefits of mandating a labeling requirement.

Also, in accordance with section 9(a) of the CPSA, the Commission solicits:

1. Written comments with respect to the risk of injury identified by the Commission, the regulatory alternatives being considered, and other possible alternatives for addressing the risk.

2. Any existing standard or portion of a standard which could be issued as a proposed regulation.

3. A statement of intention to modify or develop a voluntary standard to address the risk of injury discussed in this notice, along with a description of a plan (including a schedule) to do so.

Comments should be mailed, preferably in five (5) copies, to the Office of the Secretary, Consumer Product Safety Commission, Washington, D.C. 20207-0001, or delivered to the Office of the Secretary, Consumer Product Safety



Commission, Room 502, 4330 East-West Highway, Bethesda,  
Maryland 20814; telephone (301) 504-0800. All comments and  
submissions should be received no later than [insert date  
that is 60 days from publication].

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Sayde E. Dunn, Secretary  
Consumer Product Safety Commission