

Dated: September 25, 1998.

**Sadye E. Dunn,**

Secretary.

Consumer Product Safety Commission.

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## CONSUMER PRODUCT SAFETY COMMISSION

### 16 CFR Part 1212

#### Multi-Purpose Lighters; Notice of Proposed Rulemaking

**AGENCY:** Consumer Product Safety Commission.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Commission has reason to believe that unreasonable risks of injury and death are associated with multi-purpose lighters that can be operated by children under age 5. Multi-purpose lighters are hand-held, self-igniting, flame-producing products that operate on fuel and typically are used to light devices such as charcoal and gas grills and fireplaces. Devices intended primarily for igniting smoking materials are excluded; such products are already subject to a child-resistance standard at 16 CFR part 1210.

The Commission is aware of 178 fires from January 1988 through August 6, 1998, that were started by children under age 5 using multi-purpose lighters. These fires resulted in 29 deaths and 71 injuries.

This notice of proposed rulemaking ("NPR") proposes a rule mandating performance standards for the child resistance of multi-purpose lighters. The Commission solicits written comments from interested persons on the proposed rule.

**DATES:** Written comments and submissions in response to this notice must be received by the Commission by December 14, 1998.

Comments on elements of the proposal that, if issued, would constitute collection of information requirements under the Paperwork Reduction Act may be filed with the Office of Management and Budget ("OMB") and with the Commission. Comments will be received by OMB until November 30, 1998.

**ADDRESSES:** Comments to CPSC should be mailed, preferably in five copies, to the Office of the Secretary, Consumer Product Safety Commission, Washington, DC 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 may also be filed by telefacsimile to (301) 504-0127 or by email to [cpsc-os@cpsc.gov](mailto:cpsc-os@cpsc.gov). Comments should be captioned "NPR for Multi-purpose lighters."

Comments to OMB should be directed to the Desk Officer for the Consumer Product Safety Commission, Office of Information and Regulatory Affairs, OMB, Washington, DC 20503. The Commission asks commenters to provide copies of such comments to the Commission's Office of the Secretary, with a caption or cover letter identifying the materials as comments submitted to OMB on the proposed collection of information requirements for multi-purpose lighters.

**FOR FURTHER INFORMATION CONTACT:** Barbara Jacobson, Project Manager, Directorate for Epidemiology and Health Sciences, Consumer Product Safety Commission, Washington, DC 20207; telephone (301) 504-0477, ext. 1206; email [bjacobson@cpsc.gov](mailto:bjacobson@cpsc.gov).

#### SUPPLEMENTARY INFORMATION:

##### A. Background

1. *The product.* Multi-purpose lighters are defined in § 1212.2(a)(1) of the rule proposed below as follows:

(a)(1) *Multi-purpose lighter*, also known as grill lighter, fireplace lighter, utility lighter, micro-torch, or gas match, means: A hand-held, self-igniting, flame-producing product that operates on fuel and is used by consumers to ignite items such as candles, fuel for fireplaces, charcoal or gas-fired grills, camp fires, camp stoves, lanterns, fuel-fired appliances or devices, or pilot lights, or for uses such as soldering or brazing.

(2) *Exclusions.* The following products are not multi-purpose lighters:

(i) Devices intended primarily for igniting smoking materials that are within the definition of "lighter" in the Safety Standard for Cigarette Lighters (16 CFR 1210.2(c)).

(ii) Devices that contain more than 10 oz. of fuel.

(iii) Matches.

Multi-purpose lighters often have a nozzle long enough to reach hard-to-light places. Further, the long nozzle allows safer ignition of products, such as gas grills, where the fuel may flare up when ignited. On certain lighters, the nozzle is flexible. Multi-purpose lighters also include lighters with shorter nozzles. Some of this group include a burner that operates at a higher flame temperature than other multi-purpose lighters. These lighters are sometimes referred to as micro-torches.

Multi-purpose lighters are activated by applying pressure to a trigger or

button mechanism, which initiates fuel flow and causes a spark. 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," or unlocked, position before the lighter can be activated.

Some multi-purpose lighters (micro-torches) may have a control that allows the lighter to remain lit after the user lets go of the lighter. This, in conjunction with a stable base or stand, allows hands-free operation of the lighter during operations such as soldering.

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 the on/off switch 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).

2. *Procedural background.* 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 Part 1210. The cigarette lighter standard excludes lighters that are primarily intended for igniting materials other than cigarettes, cigars, and pipes.

In February 1996, Judy L. Carr petitioned the Commission to "initiate Rulemaking Proceedings to amend 16 CFR Part 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."

On May 7, 1996, the Commission published a **Federal Register** notice soliciting comments on topics related to issues raised by the petition. 61 FR 20503. The Commission received nine comments in response to that notice. After considering these comments and the other available information, the Commission voted to grant the petition and commence a rulemaking proceeding that could result in a mandatory standard for the child resistance of multi-purpose lighters.

The rulemaking was commenced by publication in the **Federal Register** of an advance notice of proposed rulemaking ("ANPR"). 62 FR 2327 (January 16, 1997). In a notice published January 8,

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

1998, the Commission extended the time for publishing a notice of proposed rulemaking until September 30, 1998. 63 FR 1077.

Nine comments were received in response to the ANPR. The Commission responds to these comments, and to three comments received earlier, in Section H of this notice. After considering these comments, the results of baseline testing of currently-marketed multi-purpose lighters for child resistance, and other available information, the Commission voted to propose the mandatory standard for multi-purpose lighters set forth below.

## B. Incident Data

The CPSC's staff identified a total of 249 fires reportedly started by children playing with multi-purpose lighters from January 1988 to the present. These fires resulted in a total of 45 deaths and 97 injuries. For the incidents where age of the fire starter was known, children under age 5 ignited 178 fires (76%). These 178 fires resulted in 29 deaths and 71 injuries. See Table 1. Children age 5 and older ignited 57 fires that resulted in 16 deaths and 19 injuries. An additional 14 fires, which resulted in 7 injuries, were described as being caused by children, but their ages were not given.

TABLE 1.—FIRES, DEATHS, AND INJURIES CAUSED BY CHILDREN UNDER AGE 5 PLAYING WITH MULTI-PURPOSE LIGHTERS, BY YEAR

Year	Fires	Deaths	Injuries
1988 .....	3	.....	.....
1989 .....	1	.....	2
1990 .....	2	.....	1
1991 .....	2	.....	.....
1992 .....	4	1	1
1993 .....	7	3	4
1994 .....	7	.....	1
1995 .....	17	6	8
1996 .....	55	8	32
1997 .....	47	4	8
1998* .....	33	7	14
Total .....	178	29	71

\* Reports received through August 6, 1998.

Source: Consumer complaints, newspaper clippings, hospital emergency room-treated injuries, fire department reports, and investigation reports.

Twenty-four of the 29 fatalities were children. See Table 2. Twenty were under age 5; four were between the ages of 5 and 14. Fourteen of the children who died had started the fire. Seven of the children who died were siblings of the fire starter. Four of the five adults who died were mothers of the children who started the fires. The four remaining fatalities were other relatives, friends, and a child in a home child-care setting.

TABLE 2.—FATALITIES THAT OCCURRED IN MULTI-PURPOSE LIGHTER FIRES CAUSED BY A CHILD UNDER AGE 5, BY AGE AND RELATIONSHIP TO THE CHILD WHO IGNITED THE FIRE, 1/1/88—8/6/98

Relationship to Fire Starter	Ages(years) of fatalities			
	Total	<5	5-14	15+
Total .....	29	20	4	5
Self .....	14	14	.....	.....
Sibling .....	7	5	2	.....
Mother .....	4	.....	.....	4
Other .....	4	1	2	1

\* Reports received through August 6, 1998.

Source: Consumer complaints, newspaper clippings, hospital emergency room-treated injuries, fire department reports, and investigation reports.

Seventeen of the 71 people who were injured required hospitalization. Several were treated for extensive second- and third-degree burns requiring long-term treatment. In addition to the fatalities and injuries, most fires resulted in property damage. Thirty-five of the 178 reports cited property damage of \$50,000 or more.

One hundred forty-six of the 178 children starting the fires were either 3 or 4 years old (about 82 percent). Three children were under age 2, indicating that even some very young children are capable of operating multi-purpose lighters. See Table 3.

TABLE 3.—AGE DISTRIBUTION OF CHILDREN UNDER AGE 5 WHO IGNITED A FIRE WHILE PLAYING WITH A MULTI-PURPOSE LIGHTER, 1/1/88—8/6/98

Age of child (years)	Total	< 2	2	3	4	< 5*
Number of children .....	178	3	24	81	65	5

\*Children were under age 5, but the exact year of age was not reported.

Source: Consumer complaints, newspaper clippings, hospital emergency room-treated injuries, fire department reports, and investigation reports.

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.

Reports of these fires were received from many sources, including the petitioner, ANPR commenters, fire departments, consumers, newspapers, and the CPSC's National Electronic Injury Surveillance System ("NEISS"). The number of fires reported each year increased sharply beginning in 1995. Part of the increase is believed to be due to CPSC's increased efforts to obtain more information on fires caused by

children playing with cigarette lighters, to monitor the effectiveness of the 1994 standard. Because these data are actual incidents rather than national estimates, the extent of the total problem may be greater.

National Fire Incident Reporting System ("NFIRS") data, upon which national fire loss estimates are based, do not specify the age of the child who started the fire or the type of lighter involved. The staff is currently conducting a study to evaluate the effectiveness of the Safety Standard for Cigarette Lighters. Data collection, based on reports from participating fire departments, began in November 1997 and will continue through the fall of 1998. The results of the Cigarette Lighter

Evaluation Study will provide information about the age of the child who started the fire and the lighter type, i.e., cigarette or utility.

The 1998 NFIRS data covering the study period are not expected to be available until 2000, due to the time lag involved in local jurisdictions forwarding data to the U.S. Fire Administration. At that time, the Commission will be able to apply the results of the Cigarette Lighter Evaluation Study to the NFIRS-based data in order to provide national estimates of incidents involving multi-purpose lighters.

In the 178 incidents started by children under 5, the brand name of the lighter involved was reported in 86

incidents. Of these, 77 (90 percent) involved one manufacturer, which has about a 90 percent share of the market. There were five other brands identified in the remaining six incidents.

The high proportion of deaths of children under age 5, and the severity of the injuries, illustrate the hazard associated with children playing with multi-purpose lighters. Nationally, 39 percent of the estimated 780 children under age 5 who died in home fires annually between 1991 and 1995 were in fires started by a child playing, usually with lighters or matches. The data reported by the staff indicate that children playing with multi-purpose lighters have become a part of this problem.

### C. Baseline Testing

To establish the level of child resistance of multi-purpose lighters that are currently on the market, CPSC contractors conducted "baseline" testing of surrogates of 5 different models of multi-purpose lighters, using the test protocol for cigarette lighters (at 16 CFR 1210.4). As far as child-resistance performance is concerned, the cigarette lighter protocol is essentially identical to the protocol proposed below for multi-purpose lighters. Three of the multi-purpose lighters tested have triggers, one has a pushbutton, and one has a squeeze handle. All of the lighters, except the model with the squeeze handle, have an on/off switch that must be in the "on," or unlocked, position to operate the lighter.

The lighters tested were not designed to be child resistant. The Commission used the results of the baseline testing to calculate the potential benefits of mandatory requirements for multi-purpose lighters, as discussed in the Preliminary Regulatory Analysis at Section G of this notice.

The test protocol that was used for the baseline testing requires panels of 100–200 children to determine the child resistance of lighters. The test is conducted with pairs of children using surrogate lighters. A surrogate lighter has no fuel, and produces a signal instead of a flame when the lighter is operated. Staff engineers designed and built the battery-operated surrogate lighters used for the baseline testing. After the lighters were equipped with surrogate systems, the engineering staff verified that the operation forces were the same as the forces in the actual production lighters.

To begin the test, the tester demonstrates the signal that the lighter makes and asks the children to try to make the signal with their lighters. The

children are given 5 minutes to try to operate the lighter. If one, or both, of the children are unsuccessful in the first 5 minutes, the tester demonstrates the lighters' operation using each child's lighter. This visual demonstration, with no additional description of how the lighter operates, is followed by another 5-minute test period.

The cigarette lighter test protocol allows unfueled production lighters with distinct operating sounds to be tested without special surrogate lighter systems. However, for all but one test, the staff used surrogate lighters to provide assurance, beyond the sound of the trigger click, that the children had successfully operated the lighters. One of the lighter models was tested both with and without a surrogate system to determine if the results would be comparable.

In five of the seven tests, the testers gave the lighters to the children with the switch "off" at the beginning of the test. Children who successfully operated these lighters turned the switch "on" and pulled the trigger. After the demonstration, the testers returned the lighters to the children with the switch in the same position the children left them at the end of the first 5-minute test period. In the sixth test, Model D was retested with the lighters' switch in the "on" position. Almost 90 percent of the children were able to operate the lighters in this test. In the seventh test, the lighters did not have an on/off switch. Over 95 percent of the children were able to operate this lighter.

Table 4 summarizes the results of the baseline testing. For a frame of reference, the standard for cigarette lighters requires a minimum child resistance of 85 percent. The child resistance of the lighters tested with the on/off switch in the "off" position ranged from 24 to 41 per cent. Therefore, none of the lighters met the requirements of the cigarette lighter standard.

TABLE 4.—BASELINE TEST RESULTS

Lighter	Successful operations	Child resistance (percent)
TEST 1 Model A—Trigger without surrogate system ...	63/100	37
TEST 2 Model A—Trigger .....	66/100	34
TEST 3 Model B—Pushbutton	63/100	37
TEST 4 Model C—Trigger .....	76/100	24
TEST 5 Model D—Trigger .....	59/100	41

TABLE 4.—BASELINE TEST RESULTS—Continued

Lighter	Successful operations	Child resistance (percent)
TEST 6 Model D—Trigger switch unlocked ("on")	88/100	12
TEST 7 Model E—Squeeze Handle(no on/off switch) .....	96/100	4

### D. The Proposed Standard

*Scope.* As noted previously, the products subject to the draft proposed standard are multi-purpose lighters, also referred to as grill lighters, fireplace lighters, utility lighters, micro-torches, or gas matches. These are hand-held, flame-producing devices that operate on fuel and are used by consumers to ignite candles, fuel for fireplaces, charcoal or gas-fired grills, campfires, camp stoves, lanterns, or fuel-fired appliances. The definition of multi-purpose lighters excludes matches, lighters intended primarily for igniting smoking materials, and devices with more than 10 oz. of fuel.

*Requirements.* Most of the provisions of the proposed standard are essentially the same as the Safety Standard for Cigarette Lighters, including a required child resistance of 85 percent. The test protocol for evaluating the child resistance of lighters is also the same, although there are some wording changes for clarification of original intent.

In contrast to the Safety Standard for Cigarette Lighters, the proposed rule covers all refillable and nonrefillable multi-purpose lighters regardless of their cost. The baseline testing showed that 63 out of 100 children were able to operate a seemingly unwieldy \$40.00 lighter with a very long handle and an 18-inch flexible nozzle.

Some industry members expressed concern that the additional time required to activate a child-resistant mechanism could increase the risk of flash-back from accumulated gas where the lighter did not light on the first attempt. As discussed in more detail later in this notice, the Commission does not know how the potential for flash-back would be affected by child-resistant mechanisms and solicits information on this issue. To minimize or eliminate any additional risk, however, the proposed rule specifies that a multi-purpose lighter must allow multiple operations of the ignition mechanism (with fuel flow) without

further operation of the child-resistant mechanism, unless the lighter requires only one motion to both (i) overcome the child-resistant mechanism and (ii) ignite the fuel. The Commission could reconsider this requirement if additional information indicates that any additional risk of flashback is not significant, that allowing multiple activations after operation of the child-resistant mechanism would cause an additional risk of child-play fires, or that the cost of this requirement is excessive.

Some multi-purpose lighters allow the lighter to remain lit after it is released by the user. This can allow hands-free operation during operations such as soldering. The Commission is interested in information from the public and affected industry on the need for a hands-free feature and on any additional risk of child-play fires that such a feature might bring to child-resistant lighters. The proposed rule allows a lighter to remain lit after being released by the user under certain circumstances.

To address the child-resistance issue with respect to lighters that have this hands-free feature, the Commission is proposing two requirements that are not in the cigarette lighter standard. The first new requirement (§ 1212.3(b)(2)) will help prevent the dangerous situation where a child who operates the child-resistant mechanism and lights the lighter could create a flame that would not go out when the lighter is released, even if it is dropped. The proposed rule specifies that, after the lighter is lit, an additional manual operation must be performed to activate the feature that allows the lighter to burn without being held by the user. Under normal operation, this feature will prevent multi-purpose lighters from being ignited when the hands-free feature is engaged.

The second new requirement is that a lighter that remains lit after it is released need not return automatically to the child-resistant condition when it is released. It must automatically reset, however, when or before the user lets go of the lighter after turning off the flame. This allows hands-free operation but requires that, by the time the lighter is released, either without or after hands-free operation, the child-resistant mechanism will have reset automatically.

The draft standard has recordkeeping and reporting requirements that will allow the Commission to ensure that lighters comply. The draft standard also requires manufacturers and importers to provide a certificate of compliance to any distributor or retailer to whom the lighters are delivered. Anti-stockpiling

provisions are designed to prevent the importation or manufacture of excessive numbers of noncomplying lighters between publication of the final rule and the effective date. The definition of base period for the anti-stockpiling provisions has been changed to "the most recent calendar year" rather than "any 1-year period during the 5-year period" prior to publication of the final rule. This change from the Safety Standard for Cigarette Lighters was recommended by the Technical Task Group of ASTM F1502. The U.S. Customs Service keeps its records by calendar year, and it is more practical for the Commission to obtain data on imports for the most recent year. The Technical Task Group also suggested that importers be required to provide the Commission with documentation of importation numbers for both the baseline period and the anti-stockpiling period. These requirements will assist the Commission in enforcing the anti-stockpiling provisions.

#### **E. Statutory Authority for This Proceeding**

Three of the statutes administered by the Commission have at least some 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. The Commission has decided to use the authority of the CPSA to issue the proposed standard for the child resistance of multi-purpose lighters. A full explanation of the Commission's reasons for that decision is published in this issue of the **Federal Register** in a notice, under section 30(d) of the CPSA, that proposes a rule determining that it is in the public interest to regulate this risk under the CPSA, rather than the FHSA or the PPPA. 15 U.S.C. 2079(d).

The procedure prescribed by the CPSA is as follows. The Commission first must issue an ANPR as provided in section 9(a) of the CPSA. 15 U.S.C. 2058(a). This was done by publishing the **Federal Register** notice of January 16, 1997. If the Commission decides to continue 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). This **Federal Register** notice constitutes the notice of proposed rulemaking. 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 section 9(f)(3), 15 U.S.C. 2058(f)(3). Preliminary findings are contained in this proposed rule.

Comments should be mailed, preferably in five copies, to the Office of the Secretary, Consumer Product Safety Commission, Washington, DC 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. Comments may also be filed by telefacsimile to (301) 504–0127 or by email to [cpsc-os@cpsc.gov](mailto:cpsc-os@cpsc.gov). Comments should be captioned "NPR for Multi-purpose lighters." All comments and submissions should be received no later than December 14, 1998.

#### **F. Market Information**

*The Product.* Most multi-purpose lighters are sold at retail for \$2.50 to \$8 each. Other multi-purpose lighters have additional features, such as refillable fuel chambers, flexible extended nozzles, and spark mechanisms powered by replaceable batteries. These lighters can retail for about \$20 or more. The type of multi-purpose lighter known as "micro-torches" also have applications in soldering, hobbies, and crafts.

*Manufacturers.* Although the precise number is unknown, industry sources estimate that there may be as many as 20 manufacturers of multi-purpose lighters and as many more importers and private labelers. Some manufacturers supply more than one importer or private labeler. The number of firms participating in the market is expected to increase as sales increase. Three manufacturers are members of the Lighter Association, a trade association representing manufacturers of cigarette lighters. The Lighter Association estimates that its members have more than 95 percent of the market for multi-purpose lighters in the United States. The manufacturer with the largest market share is Scripto-Tokai Corporation. Industry sources indicate that Scripto-Tokai may have 90 percent of the market. Other major manufacturers include Swedish Match (Cricket® brand), BIC, and Flamagas.

Retail prices for multi-purpose lighters generally start at less than \$2.50, and most retail for less than

\$8.00. However, some high-end multi-purpose lighters retail for \$20 to \$40 or more. These are generally refillable lighters with battery powered ignition systems that ensure a more reliable ignition. Micro-torches have been observed retailing for as little as \$12, but they more frequently retail for from about \$20 to more than \$100. The high-end and micro-torch lighters combined may have less than three percent of the market for multi-purpose lighters.

BIC Corporation recently introduced a multi-purpose lighter that is believed to meet the requirements of the proposed rule. BIC expected that its multi-purpose lighter would sell for between \$3.99 and \$4.99, but its observed retail prices have been as low as \$3.49 and as high as \$5.49.

BIC Corporation manufactures its multi-purpose lighter at a facility in South Carolina. Only one other manufacturer, Donel, is known to produce multi-purpose lighters domestically. Scripto-Tokai imports its lighters from Mexico. Flamagas (Clipper brand) lighters are produced in Spain. Most other lighters are manufactured in Asian countries, such as the Philippines, Taiwan, Korea, and China.

Another manufacturer is marketing a multi-purpose lighter for about \$25 that has features designed to be child resistant, but this lighter has not been tested according to the protocol in the Safety Standard for Cigarette Lighters, 16 CFR part 1210.

*Sales and useful product life.* The most common type of multi-purpose lighters was introduced by Scripto-Tokai in 1985. According to Scripto-Tokai, it sold one million units the first year. Micro-torches, representing a small portion of the annual unit sales of multi-purpose lighters, were also introduced around 1985. Sales of multi-purpose lighters have been increasing rapidly since their introduction. An estimated 16 million units were sold in 1995, and an estimated 20 million units are expected to be sold in 1998. Industry sources expect sales to increase at the rate of 5 to 10 percent annually over the next several years. More than 100 million multi-purpose lighters have been sold since 1985.

The useful life of a multi-purpose lighter depends on the frequency and purpose for which it is used. If a typical multi-purpose lighter contains enough fuel for an average of 1,000 lights<sup>2</sup>, a

multi-purpose lighter that is used several times a day would last less than one year. On the other hand, a lighter that is used less than once a day, or only seasonally, could be expected to be used much longer. While about 20 million lighters were reportedly sold in 1997, a study based on a panel of 20,000 households indicated that fewer than 8 million U.S. households purchased multi-purpose lighters between October 1996 and October 1997.<sup>3</sup> This suggests that most multi-purpose lighters have a useful life of less than one year, and/or that a large proportion of households that have multi-purpose lighters use more than one lighter over the course of a year. The useful life of the more expensive models, however, can be substantially longer, since they are refillable and not designed to be disposable. Therefore, these lighters can be expected to have useful lives of several years. Thus, although the unit sales of these products account for a very small portion of the annual sales of multi-purpose lighters, they can be expected to account for a larger portion of the products in consumers' hands because they do not have to be replaced as often.

*Substitutes for multi-purpose lighters.* Several products are reasonable substitutes for multi-purpose lighters. The most common substitute is probably the match. Compared with about 8 million households purchasing multi-purpose lighters in 1997, a 1991 study for the CPSC indicated that more than 60 million households had either book or box matches. Cigarette lighters are also common substitutes for multi-purpose lighters.

Assuming that the typical multi-purpose lighter has enough fuel for 1,000 lights, the consumer cost per light is between 0.25 cents (i.e., one-fourth of one cent) and 0.8 cents.<sup>4</sup> The consumer cost per light for kitchen matches is estimated to be less than 0.3 cents. Other types of matches, such as book matches, cost less per light. The cost per light of cigarette lighters is about 0.1 cents.

There are also reasonable substitutes for micro-torches when they are used in applications such as soldering. The closest substitutes would likely be non-self-igniting micro-torches. These are functionally identical to self-igniting micro-torches, except that they must be

and then the gas would have to build up to an ignitable level.

<sup>3</sup> Information Resources Inc. study. Results provided by BIC Corporation.

<sup>4</sup> If the retail price of a multi-purpose lighter is \$2.50, then \$2.50/1,000 lights is \$0.0025/light. If the retail price of a multi-purpose lighter is \$8.00, then \$8.00/1,000 lights is \$0.008/light.

ignited with a match or other external lighter. Electric soldering irons can also be used for many of the same applications. The cost to consumers of these substitutes may be similar to the cost of micro-torches when used in some applications.

### G. Preliminary Regulatory Analysis

*Potential benefits of the proposed rule.* The proposed rule is intended to reduce fires resulting from young children playing with, or otherwise attempting to operate, multi-purpose lighters. The benefits to society of the proposed rule are the expected reduction in fires and in the deaths, injuries, and property damage associated with these fires. While the proposed rule is intended to address such fires caused by children under the age of 5 years, there may also be some reduction in the number of fires started by children over the age of 5 years.

The Commission is aware of 119 fires from 1995 through 1997 that were started by children under age 5 years playing with, or otherwise attempting to operate, multi-purpose lighters. These incidents, which are summarized in Table 5 below, resulted in 18 deaths, 48 injuries, and substantial property damage. Assuming a cost of \$5 million for each fatality, an estimate that is consistent with the existing literature, a point estimate of the societal costs of the known fatalities between 1995 and 1997 is approximately \$90 million. Of the 48 nonfatal injuries, 12 involved victims that were hospitalized with burns, some severe. An earlier CPSC study estimated that the average cost of a hospitalized fire burn was \$898,000; the average cost of a nonhospitalized burn injury was estimated to be \$15,000.<sup>5</sup> These estimates include medical treatment, lost income, and pain and suffering. Using these estimates, the total cost of known injuries from Table 5 is approximately \$11.3 million [(12 × \$898,000) + (34 × \$15,000)]. The property damage associated with cigarette lighter fires from child play was estimated to be an average of \$15,000 per incident. Assuming the incidents with multi-purpose lighters are similar to those resulting from cigarette lighters, the total property damage associated with the incidents in Table 5 is estimated to be at least \$1.8 million (\$15,000 × 117 fires).

<sup>2</sup> What constitutes an "average" light is less certain than with cigarette lighters, where the average time to light a cigarette is fairly predictable. While using a multi-purpose lighter to light a candle may require little time (and fuel), lighting a gas grill may require more time. The multi-purpose lighter would have to be lit and the gas turned on,

<sup>5</sup> Ray, Dale R. and William W. Zamula, *Societal Costs of Cigarette Fires*. U. S. Consumer Product Safety Commission, August, 1993.

TABLE 5.—FIRE LOSSES RESULTING FROM CHILDREN UNDER 5 OPERATING MULTI-PURPOSE LIGHTERS

Year	1995	1996	1997	Total
Fires .....	17	55	47	119
Deaths .....	6	8	4	18
Injuries .....	8	32	8	48

The total societal cost of the known incidents for the three years, including the costs associated with deaths, injuries, and property damage, is about \$103 million. This averages about \$34.4 million per year. It is important to note that these cost estimates are based only on the incidents reported to CPSC, not on aggregate fire loss estimates. There likely are other incidents of which CPSC is not aware. If so, the \$34.4 million figure understates the average annual societal cost of child-play multi-purpose lighter fires that occurred between 1995 and 1997.

The proposed rule is not expected to eliminate all fire incidents involving children under the age of 5. Some children will probably be able to operate multi-purpose lighters that meet the requirements of the rule. Indeed, a multi-purpose lighter will meet the requirements of the proposed rule if no more than 15 percent of the subjects in the test panel can operate the lighter (or the surrogate used in place of the lighter).

On the other hand, some children under the age of 5 cannot operate the "non-child-resistant" multi-purpose lighters currently on the market. CPSC baseline testing indicates that, depending on the model, 4 to 41 percent of test subjects cannot operate non-child-resistant multi-purpose lighters. Therefore, all other things being equal, the proposed rule for multi-purpose lighters is expected to reduce the number of children under the age of 5 that can operate multi-purpose lighters by 75 to 84 percent, depending on the model.<sup>6</sup> Assuming that this reduces the number of fires started with multi-purpose lighters by children under the age of 5 by the same percentage, the societal costs of the fires will be reduced. For example, for the period 1995 through 1997, societal costs would have been reduced by at least \$25.7 million to \$28.8 million annually had

<sup>6</sup>For lighters that already have a high baseline child resistance (e.g., could not be operated by 41 percent of the test subjects, the improvement will be 75 percent  $[(0.85 - 0.41)/(1.0 - 0.41) = 0.75]$ . For lighters that do not have a high degree of baseline child resistance (e.g., could not be operated by only 4 percent of the test subjects, the improvement will be 84 percent  $[(0.85 - 0.04)/(1 - 0.04) = 0.84]$ .

all multi-purpose lighters been child resistant.

The expected benefits of the proposed rule will be even higher if manufacturers achieve a child-resistance level greater than 85 percent. The experience with cigarette lighters indicates that most manufacturers achieve 90 percent or higher child resistance. If manufacturers of multi-purpose lighters achieve the same level of child resistance, the estimated societal benefits of the proposed rule could be 6 to 11 percent higher than set forth above.

*Potential costs of the proposed rule.* There would be several types of costs associated with the proposed rule. Manufacturers would have to devote some resources to develop or modify technology to produce child-resistant multi-purpose lighters. Before being marketed, the lighters must be tested and certified to the new standard. Manufacturing child-resistant lighters may require more labor or material than non-child-resistant lighters. Finally, the utility that consumers derive from lighters may be diminished if the new lighters are more difficult to operate.

*Manufacturing costs.* Manufacturers will have to modify their existing multi-purpose lighters to comply with the proposed rule. In general, costs that manufacturers would incur in developing, producing, and selling new complying lighters include the following:

- Research and development toward finding the most promising approaches to improving child resistance, including building prototypes and surrogate lighters for preliminary child panel testing;
- Retooling and other production equipment changes required to produce more child-resistant multi-purpose lighters, beyond normal periodic changes made to the plant and equipment;
- Labor and material costs of the additional assembly steps, or modification of assembly steps, in the manufacturing process;
- The additional labeling, recordkeeping, certification, testing, and reporting that will be required for each new model;
- Various administrative costs of compliance, such as legal support and executive time spent at related meetings and activities; and
- Lost revenue if sales are adversely affected.

Industry sources have not been able to provide firm estimates of these costs. One major manufacturer, BIC, has introduced a child-resistant multi-purpose lighter. However, because BIC

did not manufacture a non-child-resistant lighter, it was unable to estimate the incremental cost of developing and manufacturing child-resistant multi-purpose lighters.

A representative of another manufacturer speculated that the costs of developing, testing, and retooling for production of multi-purpose lighters might be \$1 million, if it is possible to adapt the same technology used to make cigarette lighters child resistant. However, if it were not possible to adapt the cigarette lighter technology, the commenter said that costs could be as much as \$5 million. Another manufacturer expected these costs to be significantly less than \$1 million.

Although it is conceivable that some manufacturers will spend as much as \$5 million to develop and retool to produce child-resistant multi-purpose lighters, especially if they have to make several attempts before they come up with acceptable designs, the investment in research and development by most manufacturers will likely be closer to \$1 million.<sup>7</sup> If, however, it is assumed that there are 15 manufacturers and that each invests an average of \$2 million to develop and market complying lighters, the total industry cost for research, development, retooling, and compliance testing would be approximately \$30 million. If amortized over a period of 10 years, and assuming a modest 3 percent sales growth each year, the average of these costs would be about \$0.13 per unit.<sup>8</sup> For a manufacturer with a large market share (i.e., selling several million units or more a year), the cost per unit for the development could be lower than the estimated \$0.13 per unit, even at the high end of the estimates. On the other hand, for manufacturers with a small market share, the per-unit development costs would be greater. Some manufacturers with small market shares may even drop out of the market (at least temporarily) or delay entering the market.

The costs per unit to develop and retool to produce child-resistant designs may be higher for micro-torches, since these costs would be amortized over a significantly lower production volume. The number of micro-torches sold annually is not known. One industry source estimated that sales of micro-

<sup>7</sup>This estimate is similar to the estimate used in evaluating the cigarette lighter standard.

<sup>8</sup>If 20 million lighters are sold in the first year (approximately the current annual sales volume) and sales increase at the rate of 3 percent a year (industry sources indicate that they have been growing at 5 to 10 percent annually), then over a 10-year period approximately 230 million lighters would be sold.  $\$30 \text{ million} / 230 \text{ million} = \$0.13 / \text{unit}$ .

torches are at least in the "tens of thousands." Another stated that industry sales were in "thousands rather than millions."

Another factor that may increase the development costs for micro-torches over the costs for other multi-purpose lighters is the fact that some micro-torches can be set to allow "hands-free" operation. Therefore, some manufacturers may have to develop modifications in child-resistance technologies to work with this feature. Alternatively, manufacturers could eliminate the self-igniting features from micro-torches intended for hands-free operation, thus removing the micro-torch from the definition of multi-purpose lighter. Although this option would not likely impose a substantial cost on manufacturers, it could reduce the convenience and utility of multi-purpose lighters for some users.

In addition to the research, development, retooling, and testing costs, material and labor costs are likely to increase. For example, additional labor will be required to add the child-resistant mechanism to the lighter during assembly. Additional materials may also be needed to produce the child-resistant mechanism. While the CPSC staff was unable to obtain reliable estimates, some industry sources indicated that they believed that these costs would be relatively low, probably less than \$0.25 per unit.

Multi-purpose lighters will also be required to have a label that identifies the manufacturer and the approximate date of manufacture. However, virtually all products are already labeled in some way. Since the requirement in the proposed rule allows substantial flexibility to the manufacturer in terms of things such as color, size, and location, this requirement is not expected to increase the costs significantly.

Certification and testing costs include costs of producing surrogate lighters, conducting child panel tests, and issuing and maintaining records for each model. The largest component of these costs is believed to be conducting child-panel tests, which, based on CPSC experience, may cost about \$25,000 per lighter model. Administrative expenses associated with the compliance and related activities are difficult to quantify, since many such activities associated with the proposed rule would probably be carried out anyway and the marginal impact of the recommended rule is probably slight. Overall, certification, testing, and administrative costs are expected to cost less than \$450,000 annually, industry

wide.<sup>9</sup> On average, these costs are expected to add about \$0.02 per unit to the per-unit cost of producing multi-purpose lighters (\$450,000 for 20 million units).

In total, the proposed rule will likely increase the cost of manufacturing multi-purpose lighters by about \$0.40 per unit.<sup>10</sup> The proposed rule will likely increase the cost of manufacturing micro-torch lighters by a greater amount than for other multi-purpose lighters. However the available information is insufficient to provide a reliable estimate of the increase in cost for micro-torch lighters.

The proposed rule contains anti-stockpiling provisions, authorized by section 9(g)(2) of the CPSA (15 U.S.C. 2058(g)(2)), to prohibit excessive production or importation of noncomplying lighters during the 12-month period between the final rule's publication date and its effective date. The provision limits the production or importation of noncomplying products to 120 percent of the amount produced or imported in the most recent calendar year before the publication date of the rule. Although the anti-stockpiling provision may, in the short term, prevent some companies from increasing their sales volume as quickly as they could otherwise, the Commission believes the provision should have little impact on the market as a whole.

*Effects on competition and international trade.* At the present time, one manufacturer has about 90 percent of the market for multi-purpose lighters. The other manufacturers, importers, and private labelers divide up the remaining 10 percent of the market, with none of the other manufacturers thought to have more than 2 or 3 percent of the market. Thus, there is already a very high degree of concentration in the market. Even so, one manufacturer has already entered the market with a model that is believed to meet the requirements of the proposed rule, another manufacturer has a model that they claim is child resistant, and at least one other firm is believed to be actively developing a child-resistant lighter. Moreover, other firms are expected to enter the market for multi-purpose lighters, and thereby

increase competition, as the market expands. Therefore, the proposed rule is not expected to have any adverse impact on competition.

With the exception of BIC, which manufactures its multi-purpose lighters in South Carolina, and one smaller manufacturer, most multi-purpose lighters are imported. To the extent that BIC has developed a child-resistant multi-purpose lighter before other manufacturers have, it may enjoy at least a short-term competitive benefit from the proposed rule, particularly to the extent its competitors are not yet in a position to manufacture child-resistant multi-purpose lighters. However, other manufacturers are expected to have child-resistant multi-purpose lighters ready to market on or before the rule's effective date.

*Impact on small business.* The Commission gives special consideration to the potential impact of its rules on small businesses. There are more than 30 manufacturers, importers, or private labelers of multi-purpose lighters. The number of firms participating in the market is increasing as the market grows. Although the dominant firms are not small, about half of the other firms may be considered to be small businesses. The cost of developing a product that complies with the proposed rule could cause some of the small importers or private labelers to stop offering multi-purpose lighters, at least temporarily. However, many of the smaller importers and private labelers are not believed to manufacture the lighters themselves, but instead import or distribute the lighters for manufacturers based, for the most part, in other countries. It is the manufacturers that will likely bear most of the costs for development of the child-resistant models. Moreover, multi-purpose lighters probably account for only a small percentage of many of the smaller importers' and private labelers' sales. Therefore, even if a small importer or private labeler stopped importing or distributing its own line of multi-purpose lighters, it is not likely to suffer a significant adverse effect if multi-purpose lighters accounted for a small percentage of its total sales. Some small firms that manufacture or import their own proprietary multi-purpose lighters may be more severely impacted. There are at least two small firms that market high-end and micro-torch multi-purpose lighters that market their proprietary designs.

The Commission examined the information available on 30 firms that were identified as being manufacturers, importers, or private labelers of multi-purpose lighters. Of these, 16 have

<sup>9</sup> Assuming 15 manufacturers with 1 multi-purpose lighter model each and an average of \$30,000 for certification, testing, and administrative costs per lighter, the total costs would be \$450,000. Although the estimate assumes that these costs are incurred annually, in fact, these costs are likely to be lower in subsequent years.

<sup>10</sup> This estimate is based on the following estimates: \$0.13/unit for research, development and retooling; \$2.25/unit for labor and materials; and \$.02/unit for certification, testing and administrative costs.



fewer than 100 employees and, thus, are considered to be small businesses according to guidelines established by the Small Business Administration. Of the 16 small businesses, one is known to manufacture its own lighters, and 12 are believed to be importers. Insufficient information was available to make these determinations on the other three firms.

*Impact on consumers.* Aside from increased safety, the proposed rule is likely to affect consumers in two ways. First, the increased cost for producing the child-resistant models will likely result in higher retail prices for multi-purpose lighters. Second, the utility derived from child-resistant lighters may be decreased if complying lighters are more difficult to operate.

Consumers ultimately will bear the increased cost of manufacturing multi-purpose lighters. Assuming a typical 100 percent markup over the incremental cost to manufacturers (estimated at \$0.40/unit), the proposed rule may be expected to increase the retail price of multi-purpose lighters by \$0.80 per unit. However, some manufacturers may be unable to pass all of the incremental costs directly to consumers. In these cases, the costs may be indirectly borne by consumers in the form of generally higher prices on the range of other products produced by the manufacturer or in the form of reduced earnings on investments in the company. The retail prices for micro-torch and high-end multi-purpose lighters will probably increase by a greater amount since the manufacturing costs per unit are greater for these lighters.

The utility that consumers receive from multi-purpose lighters may be reduced if the rule makes the lighters more difficult to operate. This could result in some consumers switching to substitute products, such as cigarette lighters or matches. However, as with child-resistant cigarette lighters, the manufacturers should be able to develop lighters that are only slightly, if any, more difficult for adults to operate. Therefore, the number of consumers who stop using multi-purpose lighters because of the child-resistant mechanisms is expected to be small.

Moreover, even if some consumers do switch to other products, the risk of fire is not expected to increase significantly. Most cigarette lighters (one possible substitute) must already meet the same child-resistant standard being proposed for multi-purpose lighters. Although consumers that switch to matches may increase the risk of child-play fires somewhat, matches seem to be inherently more child resistant than non-child-resistant multi-purpose

lighters. Previously, the CPSC determined that non-child-resistant cigarette lighters were 1.4 times as likely as matches to be involved in child-play fires and 3.9 times as likely to be involved in a child-play death.<sup>11</sup> Thus, even if some consumers did switch to using matches, the risk of child-play fires would still likely be less than if they continued to use non-child-resistant multi-purpose lighters.

Some manufacturers of micro-torches may respond to a rule requiring all multi-purpose lighters to be child-resistant by no longer offering micro-torches that are self-igniting. Products that are not self-igniting do not present the same risk of child-play fires and are not included within the definition of multi-purpose lighter. In this case, the consumer would have to use an external ignition source to light the torch. Although this option may not increase manufacturing costs, it could reduce the convenience and utility of the multi-purpose lighters. Consumers will have to provide external ignition sources, such as matches or other multi-purpose lighters, to ignite the torches.

*Estimated net benefits of the proposed rule.* As previously stated, the total societal costs of fires known to have been started during 1995 through 1997 by young children playing with, or otherwise attempting to operate, multi-purpose lighters was approximately \$103 million, or approximately \$34.4 million per year. This is probably an underestimate, since it only includes the cases of which CPSC is aware. During the same period, there were an average of an estimated 19.4 million multi-purpose lighters, including micro-torches, were available for use each year.<sup>12</sup> The societal costs of the fires started by young children with multi-purpose lighters are, therefore, about \$1.77 per lighter (\$34.4 million ÷ 19.4 million lighters). The proposed rule is expected to reduce this cost by 75 to 84 percent. Therefore, the expected societal benefit of the proposed rule in terms of reduced fires, deaths, injuries, and property damage is expected to be \$1.33 to \$1.49 per complying lighter sold. Based on the number of multi-purpose lighters now in use (over 20 million),

the total societal costs of these fires exceed \$35 million annually.

The computation of the net benefits of the proposed rule depends on the expected number of years that a multi-purpose lighter is available for use. The Commission estimates that the useful life of most multi-purpose lighters, excluding micro-torches, is about one year. Therefore, since the proposed rule may increase the cost of manufacturing multi-purpose lighters by \$0.40 and may increase the retail prices by as much as \$0.80, the net benefit to society of the proposed rule is expected to be at least \$0.53 per unit (\$1.33 – \$0.80). If 20 million units are sold per year, the proposed rule would result in an annual net benefit to consumers would be about \$10.6 million (20 million × \$0.53) each year.

Some multi-purpose lighters have useful lives of greater than one year. Therefore, the gross benefit of the proposed rule per lighter of this type is computed by summing the expected annual net benefit (estimated as \$1.33 per unit above) over the expected life of the lighter. For example, if a multi-purpose lighter, such as a micro-torch, had an expected useful life of 10 years, the gross benefit would be \$11.14 per lighter, assuming a discount rate of 4 percent. As stated earlier, the costs/unit for manufacturing these micro-torch type multi-purpose lighters is likely to be higher. Assuming a markup at retail of 100 percent over manufacturing costs and a 10-year product life, if the cost per unit to manufacture child-resistant micro-torches is less than \$5.57/unit, net social benefits would result. However, if the expected useful life of a micro-torch was only 5 years, the gross benefit would be \$6.14/unit. This would suggest positive net benefits if the per-unit manufacturing costs are less than \$3.12 per unit.

The preceding benefit estimates may tend to be low because they are based on the test results for the model of multi-purpose lighter with the highest level of baseline child resistance (41 percent) for the tests conducted with the switch in the "off," or locked, position. The choice of this test for baseline purposes would tend to lower the benefit estimate in two ways. The child resistance of the other three models tested with the switch in the locked position ranged from 24 percent to 37 percent. Thus, the effective child resistance of currently used multi-purpose lighters likely is somewhat lower than the baseline figure used for the benefit estimates. In addition, essentially all of the children on the test panel were able to operate the model with no on/off switch (96 percent) and

<sup>11</sup> Smith, Linda E., Charles L. Smith, and Dale R. Ray, *Lighters and Matches: An Assessment of Risks Associated with Household Ownership and Use*, U.S. Consumer Product Safety Commission, Washington, DC (June 1991).

<sup>12</sup> The average number of multi-purpose lighters, excluding micro-torches, that were in use was 18 million. This estimate was based on estimated annual sales and an estimated useful life of 1 year. The number of micro-torches available for use was estimated to be about 1.4 million. This estimate is based on less certain data and may be subject to change as more information becomes available.



the model with the switch in the unlocked position (88 percent). This means that, to the extent that adults do not return the switch to the locked position after use, the effective child resistance of multi-purpose lighters in use would be less than that obtained from a test of a lighter in the "off" position. Thus, a child-resistant mechanism could provide a greater benefit than estimated above.

*Alternatives to the proposed rule.* There are possible alternatives to the proposed rule. These alternatives include not taking any action and relying on voluntary efforts, having only labeling requirements, narrowing the scope of the rule and establishing a different effective date. These alternatives are discussed below.

1. *No action and rely on voluntary efforts.* One alternative is to take no action to reduce the occurrence of fires started by children playing with multi-purpose lighters. If no mandatory rule were issued, some manufacturers might still introduce child-resistant multi-purpose lighters. While these manufacturers can emphasize the safety of their product, they could be at a competitive price disadvantage compared to manufacturers who continue to sell non-child-resistant lighters. Although the portion of the market that would be captured by manufacturers of child-resistant lighters is not known, it is reasonable to assume it would be substantially less than 100 percent, especially since many of the products are imported. Perhaps only two or three firms would offer such products. For example, if child-resistant lighters captured 20 percent of the market under this alternative, the annual benefits would be approximately 20 percent of the benefits of a mandatory rule.

Currently, there is no voluntary standard for child-resistant multi-purpose lighters. The Commission could work with appropriate standards-setting organizations to develop such a standard. However, for the reasons stated above, conformance with such a standard is likely to be low.

2. *Labeling requirements.* The Commission could choose not to issue a performance standard, but instead opt to rely on additional warning labels on multi-purpose lighters. However, the FHSA already requires multi-purpose lighters to be labeled "Keep out of reach of children." The effectiveness of additional labeling would likely be low.

3. *Narrowing the scope.* The Commission considered exempting the more expensive lighters (e.g., those retailing for more than \$20) from the proposed rule. This would have been

similar to the exemption in the cigarette lighter standard for lighters with a customs value or ex-factory value greater than \$2.00. This was intended to exempt certain luxury cigarette lighters for which there was little evidence of involvement in child-play fires. However, the CPSC does not have evidence that the more expensive multi-purpose lighters are less likely to be involved in child-play fires than the less expensive models. There is no evidence that the more expensive multi-purpose lighters are stored or used differently around the home than are the more common and less expensive lighters. Furthermore, baseline testing indicates that some of the expensive lighters are at least as easy for children to operate as less expensive models. Therefore, there is insufficient evidence to conclude that exempting the more expensive multi-purpose lighters from the proposed rule would significantly reduce the costs without significantly reducing the benefits.

The Commission also considered narrowing the scope of the rule by excluding from its coverage products known as micro-torches. The Commission decided against this because micro-torches serve the same function as other types of multi-purpose lighters—to provide consumers with a useful tool for accomplishing a variety of household and recreational tasks requiring a flame—and present the same risk of operation by children. Although some micro-torches have a shorter nozzle or operate at a higher temperature than do other multi-purpose lighters, the similarity of the products in function and risk outweighs any differences and warrants inclusion of micro-torches within the definition of multi-purpose lighter.

Multi-purpose lighters and micro-torches share the same features; they are hand-held, lightweight, compact, self-igniting (e.g., by pressing a trigger or button), easy to carry, and convenient to store. Further, the packaging and catalog descriptions for micro-torches promote them for lighting grills, fireplaces, camp fires, camp stoves, and lanterns. In one fire incident, a micro-torch had been used by a consumer to light a furnace pilot light. These are the same types of tasks for which other multi-purpose lighters are promoted and used.

Children also will be attracted to micro-torches in the same ways that they are attracted to other multi-purpose lighters. At age two, children begin true role play and symbolic play, and make use of less realistic objects as props for

pretend play.<sup>13</sup> The Commission's Human Factors staff believes that micro-torches are likely to appeal to and be attractive to children because of their shapes, which, for some pocket-type micro-torches, resemble toy "ray guns" or hose nozzles that children often play with in the summer. Upon seeing them operated, some children will want to play with the micro-torches because of a natural curiosity about fire and because they desire to imitate adults in their make-believe play. For children, micro-torches and other types of multi-purpose lighters are the same product perceptually and cognitively, with the same attraction and the same potential hazard.

It also can be expected that children will have access to micro-torches, as well as other multi-purpose lighters. Like other multi-purpose lighters, micro-torches are often used and stored in and around the home, making them accessible to children. The Commission is aware of one case in which a three-year-old boy ignited bedding materials with a micro-torch that had been used for lighting a furnace pilot light. Even if some micro-torches are stored in home tool boxes, tackle boxes, workbenches, or other places where tools are located, the Commission's incident information shows that children obtain multi-purpose lighters from such locations.

Furthermore, micro-torch lighters represent only a small portion of the multi-purpose lighters in use. Micro-torches probably account for less than five percent of the multi-purpose lighters in use and perhaps one percent of unit sales of multi-purpose lighters. Therefore, the fact that the Commission is aware of only one incident involving a micro-torch lighter may be related to the low number of these products in use and not because these products are used more safely around the house. Although the per-unit costs to make torch-type lighters child resistant may be higher than for other multi-purpose lighters, the benefits may also be higher, since torch-type lighters have a longer useful life, which would result in exposure to children over a longer period of time for each lighter.

In sum, micro-torches and other multi-purpose lighters share sufficient similarity of function and risk to be considered as a single product for the purposes of the proposed rule.

4. *Alternate effective date.* The proposed rule incorporates an effective date of 12 months from the date of

<sup>13</sup> Goodson, B.D. & Bronson, M.B. (1985). Guidelines for Relating Children's Ages to Toy Characteristics (Contract No. CPSC-85-1089). Prepared for the U.S. Consumer Product Safety Commission, Washington, DC.

publication in the **Federal Register**. However, the Commission could consider shorter or longer effective dates. The 12-month effective date lessens the economic burden of the rule while providing protection to consumers as soon as reasonably possible.

While developing the Cigarette Lighter Safety Standard, the Commission estimated that it would take an average of 12 months to develop, test, retool for production, perform production tests, and manufacture and ship the product.<sup>14</sup> Some manufacturers, especially those that have been following the Commission's activities on cigarette lighters and multi-purpose lighters may have already begun work on child-resistant models or can take advantage of their experience with the cigarette lighter standard and be able to manufacture and market child-resistant lighters sooner than 12 months. In fact, at least one model is already on the market.

On the other hand, manufacturers who have not until very recently started following the Commission's activity with regard to this rulemaking procedure may not have begun any development work. Manufacturers of multi-purpose lighters that do not also manufacture cigarette lighters, such as some micro-torch manufacturers, do not have the experience manufacturing child-resistant cigarette lighters. These manufacturers may be adversely affected by an effective date shorter than 12 months.

A 12-month effective date does not mean that no benefits will occur until 1 year after the publication of the rule in the **Federal Register**. Indeed, one manufacturer already has a child-resistant multi-purpose lighter on the market. Other manufacturers can be expected to introduce their own models as they get them developed. Therefore, the Commission expects that the number of child-resistant multi-purpose lighters on the market to begin increasing prior to the effective date of the rule.

**Conclusion.** The proposed rule would have substantial net benefits to consumers. The rule should approach its maximum effectiveness within a couple of years after its effective date, since multi-purpose lighters typically have useful lives of about one year or less. At that time, as a result of the proposed rule, the number of fires started by young children playing with, or otherwise attempting to operate, multi-purpose lighters should be at least

75 percent lower than what would be expected in the absence of a rule.

There is at least one model of multi-purpose lighter on the market now that probably complies with the proposed rule. It is expected that other manufacturers should be able to produce complying multi-purpose lighters before a final rule goes into effect. Therefore, the Commission does not anticipate that the rule will cause any disruption in the supply of multi-purpose lighters.

Some manufacturers, especially those with a small share of the market, may decide not to make the needed investment to develop child-resistant multi-purpose lighters. However, since the market for multi-purpose lighters is growing, other firms can be expected to enter the market as the market expands. Therefore, since a permanent reduction in the number of firms affected by the rule is not expected, any adverse impact on competition in the market would be small and temporary. Any adverse impacts would be mitigated even further if the standard in the proposed rule were adopted internationally.

A number of alternatives to the rule exist, including options regarding various aspects of the proposed rule itself. While some of the options may reduce total costs, none of the alternatives would increase the overall level of safety to consumers.

#### H. Comments on the ANPR

The public comment period on the ANPR closed on March 17, 1997. The Commission received nine written comments, including two received after the comment period closed. Three additional written comments that were received before the ANPR was published, but not addressed previously, are also discussed in this notice. Copies of all written comments are available from the Commission's Office of the Secretary.

The President of the Ohio Chapter of the International Association of Arson Investigators Inc., and the President of the National Association of Pediatric Nurse Associates and Practitioners, Inc., wrote in support of Commission action to require multi-purpose lighters to be child resistant.

Conrad Guthrie of Vinson & Elkins, the petitioner's attorneys, submitted information on four additional incidents, involving three deaths. Mark W. Collmer, of McDowell Collmer, L.L.P., submitted information about another incident involving a death.

D. Bruce Kehoe of Wilson, Kehoe & Wingham submitted information about an incident involving a child who is permanently disabled due to severe

burns. This law firm also submitted information on 60 incidents reported to them in response to their advertisement requesting information on multi-purpose lighter incidents in the December 1997 issue of *Fire and Arson Magazine*. For a number of these incidents, the submitted information did not state that a multi-purpose lighter was used. In 22 of the 60 incidents, the child who started the fire was reported to have used a multi-purpose lighter and to be under age 5.

Carrie Craig wrote a letter describing her experience when her home burned down after her 3-year-old daughter ignited a couch with a multi-purpose lighter obtained from the fireplace mantle.

Scripto-Tokai Corporation (Scripto) and Swedish Match North America Inc., (Cricket®), importers of multi-purpose lighters, submitted comments regarding incidents. Scripto stated that during the past 12 years it has distributed approximately 100 million multi-purpose lighters and has received only about two dozen reports of children allegedly operating a multi-purpose lighter. Scripto commented that most of the incidents did not involve any claim of personal injury. Cricket® reported it has sold several million multi-purpose lighters since 1992 and never had a single report of any child-play incident.

Scripto, Cricket®, and the Lighter Association, Inc., requested that any requirement for child resistance be developed as a separate standard from the Safety Standard for Cigarette Lighters.

A summary of other issues raised by the commenters, and the Commission's responses, are provided below.

#### Issue: Risk of Injury

The President of the National Association of Pediatric Nurse Associates & Practitioners, Inc., "agrees that multi-purpose lighters which can be operated by children under the age of 5 pose an unreasonably dangerous risk to children and their families."

The Lighter Association, Inc., questions the validity of the Commission's incident data on multi-purpose lighters and whether the incidents resulting in deaths involved a fire started by children under the age of 5.

Scripto states that the data reported in the ANPR (53 fires over 106 months) equates to one child-play fire incident every two months that may have involved a multi-purpose lighter.

"Based upon available data, Scripto does not believe that multi-purpose lighters, as a class of products, present an unreasonable risk of serious injury or

<sup>14</sup> CPSC Memorandum dated February 8, 1991, from Dale R. Ray (ECPA) to Barbara Jacobson (HS).

death to consumers under the definitions provided by either the Consumer Product Safety Act or the Federal Hazardous Substances Act." Scripto states that it is unclear why the Commission has selected multi-purpose lighters for possible regulation as opposed to arguably more hazardous fire producing consumer products such as matches, stoves, candles, and heaters, as evidenced in the Commission's report, "1994 Residential Fire Loss Estimates." Scripto states that "there would be a far greater societal benefit in regulating matches than multi-purpose lighters."

#### **Response**

The staff reported 178 fire incidents that were started by children under age 5. The staff did not include incidents in this tabulation where there was a question about the age of the child who started the fire or where there was a question about whether a multi-purpose lighter was involved.

There are no data currently available to compare the per-unit risk associated with multi-purpose lighters with any other flame source. As expected, there are many more child-play incidents involving matches, because of the larger number of these products in use. The per-unit risk for other products may or may not be greater than the per-unit risk for multi-purpose lighters. However, this does not preclude Commission action on multi-purpose lighters if the risk of injury and death can be addressed at a reasonable cost.

#### **Issue: Effectiveness of the Cigarette Lighter Standard**

The Lighter Association, Inc., states that several of the larger distributors of disposable cigarette lighters began selling child-resistant lighters before the July 12, 1994, effective date of the Safety Standard for Cigarette Lighters. The Association cites an increase in the estimated number of child-play deaths from lighters, from 170 in 1993 to 230 in 1994, as evidence that the Cigarette Lighter Standard has not been effective.

Scripto states that there are no available data to conclude that incorporating child-resistant mechanisms into multi-purpose lighters will reduce the incidence of child-play fires. "Until the Commission has analyzed the accident data for 1995 and 1996, there is no empirical basis to conclude that the Cigarette Lighter Safety Standard has been effective in reducing the number of child play fire incidents."

Cricket® also comments that the Commission should defer a decision about extending the standard to multi-

purpose lighters until it is determined whether the cigarette lighter standard has had an impact on the incidence of child-play fires.

#### **Response**

Fire loss estimates are now available for 1995. These data were not previously available to the commenters. There were an estimated 8,200 residential structure fires caused by children (regardless of age) playing with all types of lighters in 1995, resulting in 180 deaths and 1,220 injuries. Fire and injury estimates are lower for 1995 than for any of the four preceding years. Comparing 1995 to 1994, when the Safety Standard for Cigarette Lighters went into effect, there was a greater percentage reduction in child-play lighter fires than the reduction in residential structure fires overall. This reduction could be the first indication that child-resistant cigarette lighters help prevent child-play fires. However, there was also a reduction in child-play fires started with matches in 1995, indicating that other factors, such as general fire prevention efforts, could also be involved. However, the reduction for child-play lighter fires (23 percent) was greater than the reduction for child-play match fires (6 percent).

The Commission's experience with the Poison Prevention Packaging Act, 15 U.S.C. 1471-1476, provides ample evidence that requiring a product to be child resistant effectively reduces the risk of injury. 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 poisonings from oral prescription drugs for children under age 5 by about 45 percent since 1974, the year these drugs became subject to the packaging requirements. The Commission believes the child-resistant concept used under the PPPA is applicable to requiring child-resistant features on cigarette and multi-purpose lighters.

More accurate information about the effectiveness of the cigarette lighter standard will be available when the Commission completes a lighter study in the year 2000. The results of this special study will identify the specific types of lighters involved in child-play fires (e.g., cigarette lighter or multi-purpose lighter) and will also identify the proportion of fires started by children under 5 years old (the group of children most afforded protection by child resistance).

Despite the current lack of specific information on the effectiveness of the

cigarette lighter standard, the Commission concludes that it should proceed with the development of a standard for multi-purpose lighters. The Commission has no reason to conclude that the Safety Standard for Cigarette Lighters is not reasonably effective in reducing child-play fires started by children under age 5 with lighters. When the cigarette lighter standard was issued, the Commission estimated that it would eventually prevent about 70 percent of child-play fire deaths with cigarette lighters. Since an even higher percentage reduction is expected from a standard for multi-purpose lighters, the Commission cannot justify risking possibly dozens of lives while waiting for enough time to pass to complete a detailed study of the effectiveness of the cigarette lighter standard.

#### **Issue: False Sense of Security**

The Lighter Association, Inc., and Scripto question whether the 1994 fire incident data, showing an increase in child-play fires involving cigarette lighters, indicate that smokers are becoming more careless in storing child-resistant lighters away from children because they assume "child resistant" means "child-proof." The Lighter Association, Inc., states that some distributors began selling child-resistant lighters as early as mid-1992, in advance of the July 1994 effective date. Therefore, it contends, one would not expect the number of child-play deaths to increase 35 percent (from 170 in 1993 to 230 in 1994.)

#### **Response**

The Commission is unaware of any evidence that the number of child-play deaths associated with cigarette lighters increased in 1994 as a result of smokers becoming more careless in storing child-resistant lighters away from children. The 1994 fire loss estimates are too near the July 1994 effective date of the Safety Standard for Cigarette Lighters to provide a measure of its effectiveness. The 1995 Residential Fire Loss Estimates are now available. Fire and injury losses associated with lighters are lower for 1995 than for any of the 4 preceding years. In 1995, the number of child-play deaths associated with cigarette lighters is down to 180 from the 230 estimated for 1994.

#### **Issue: Attractiveness**

The President of the Ohio Chapter of the International Association of Arson Investigators Inc., and the President of the National Association of Pediatric Nurse Associates & Practitioners, Inc., expressed concern that the attractiveness of the design (gun or toy

shape) and colorful packaging of multi-purpose lighters would attract children to play with them.

#### Response

Multi-purpose lighters do have physical characteristics similar to a gun (barrel, trigger, and in some cases, trigger guard). Most are also functionally similar to a gun since they are activated by pulling a trigger mechanism. It seems likely that children might play with these lighters by "shooting" them as they would a toy gun. There are references to a "gun" or "toy-like shape" in a number of the reports of fires associated with multi-purpose lighters. It seems likely 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 as play objects compared with ordinary cigarette lighters or matches. Even without a toy-like appeal, knowledge that the lighter can produce a flame would motivate many children to play with it. This is one reason the Commission is proposing this new rule.

The Commission is not aware of any incidents in which the packaging was influential in attracting children to the lighters.

#### Issue: Supervision

Scripto comments "that unsupervised young children are vulnerable to an array of environmental and household hazards \* \* \*. Unfortunately, a common element among the most serious injuries to young children is a lack of proper adult supervision."

#### Response

The Commission agrees that proper adult supervision is very important. However, after reviewing the fire incident reports, the Commission has concluded that the children were under reasonable levels of supervision at the time they started the fires. Fires were started while parents or guardians were present in the house.

Furthermore, children of the ages of those involved in the incidents are old enough to engage in play activities in rooms other than where their parents or guardians are present. In fact, child development experts state that at 3 and 4 years of age, children can be given some freedom from direct adult supervision. Thus, it is not realistic to expect parents to directly observe children of these ages during each moment of the day.

#### Issue: Voluntary Standards, Education, and Labeling as Alternative Means To Address the Hazard

The Lighter Association, Inc., refers to section 7 of the Consumer Product Safety Act (15 U.S.C. 2056), which states that the Commission can issue performance and/or labeling standards in addressing potential risks. The Association states the ANPR ignores voluntary standards, education, and labeling, in favor of a position that product design is the most effective approach to address a hazard.

Cricket® suggests that the Commission consider addressing identified problems with "enhanced public awareness and education programs."

Scripto states, "Whether or not the Commission elects to mandate a child resistancy standard for multi-purpose lighters, it must not lose sight of the goal of educating children and parents on fire safety."

Scripto comments, "Clear, effective warnings and labels must be provided with fire sources to adequately inform consumers of the applicable hazards \* \* \*. Such efforts must receive immediate top priority."

#### Response

The Commission does not agree that the advance notice of proposed rulemaking ignores education, labeling, and voluntary standards as possible means to address the risk of injury associated with multi-purpose lighters. The ANPR specifically invited 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 associated with multi-purpose lighters. The ANPR also solicited comments on other possible means to effectively address the hazard.

At an April 16, 1998, meeting of ASTM Subcommittee F15.02, Safety Standards for Cigarette Lighters, the members voted to support the Commission action to develop a mandatory standard for multi-purpose lighters. Manufacturers whose multi-purpose lighters comprise a major share of the market are members of this subcommittee. The members also voted to form a technical task group for the purpose of providing input to the Commission on the provisions of the draft standard. Based on these actions, the CPSC does not expect a voluntary standard to be developed.

The Commission does not believe that warning labels or education alone can effectively address the risks associated with multi-purpose lighters. Multi-

purpose lighters have always been subject to labeling requirements under the Federal Hazardous Substances Act. The required statements include: "Keep out of the reach of children." The incidents indicate that many consumers were aware of the danger of lighters and took precautions to keep them out of the reach of their children.

When attempting to keep objects out of reach, caregivers often find a storage place that is up high. However, children learn to conquer height at an early age. At 2 years of age, a child can climb a play gym; at 2½ years of age, a child is quite skillful in climbing. By the time a child is 4 to 5 years of age, the motor abilities have evolved to the point where a child has the coordination and balance of an adult. The motor abilities of children in these age ranges make it very difficult to find a storage place that provides both convenient access for users and safety for young children.

Since most caregivers are fully aware of the dangers of young children playing with lighters, and since children access them in spite of attempts to store them out of reach, the Commission concludes that additional or different warning statements would not reduce the incidence of fires. The Commission preliminarily concludes that a child, resistant feature on multi-purpose lighters would be the most effective approach of addressing the hazard.

#### Issue: Scope

Cricket® urges the Commission to determine whether the child-play problem is related to "issues with a particular product" rather than to all multi-purpose lighters.

#### Response

Although the large majority of the reported fire incidents involved one manufacturer, there were also five other brands identified. In addition, the results of the baseline testing of five different models of multi-purpose lighters demonstrate that the majority (59 to 96 percent) of the children on the test panels were able to operate them. This is a range of child resistance of 4 to 41 percent, in contrast to the minimum requirement of 85 percent in the standard proposed below. The baseline results indicate that when the on/off switch is left unlocked, as is expected to be the case in many households, most of the children in the test panel could operate the lighters.

#### Issue: Requirements for Multi-purpose lighters May Create New Hazards

Scripto states that there is a concern that requiring the child-resistant mechanism to reset itself automatically

after each operation of the ignition mechanism, as required in the cigarette lighter standard, "could create new and serious hazards for the product's users." Scripto states, "It is not uncommon for piezo ignition devices to require more than one attempt to ignite. Environmental factors such as wind, low temperature, altitude or moisture can also affect the consumer's ability to properly ignite the piezo lighter." Scripto states that, because a child-resistant mechanism would further delay ignition, the potential for "flashback explosions or fires" is increased in applications such as igniting a gas grill.

Cricket® states that multi-purpose lighter "mechanisms do not light 100% of the time, particularly when used in outdoor conditions." They strongly believe that the Commission should analyze the potential for a small fire or explosion as a result of the delays associated with a child-resistant mechanism before proceeding to institute a standard.

The Lighter Association, Inc., comments that "Flashback fire is a very real issue \* \* \*. If the new regulation reduces risks to children, but increases risks to adults (the ones who are supposed to be using the product!), then the regulation should be rejected."

#### Response

The Commission acknowledges that piezo devices, such as multi-purpose lighters, often require more than one attempt to ignite. This is due, in large part, to the fact that the fuel may not reach the end of the lighter nozzle at the same time the spark is generated. Therefore, the consumer may need to pull the trigger more than once in order to create multiple sparks.

However, the Commission does not agree that child-resistant multi-purpose lighters will create hazardous use conditions. Based on testing using gas barbecue grills, the Commission's Division of Engineering concluded that the risk of flame-up or small explosion for some grills is minimal for short periods of delayed ignition, such as 5–10 seconds. The consumer can avoid this risk altogether by igniting the lighter before turning on the gas.

To further minimize the possibility of creating a hazardous use condition, the draft standard requires that multi-purpose lighters allow multiple operation attempts before letting go of the lighter causes the child-resistant feature to reset. One manufacturer is currently marketing a child-resistant multi-purpose lighter with such a design. This manufacturer has tested the lighter according to the protocol in the

Safety Standard for Cigarette Lighters to establish that it is child resistant.

The Commission is aware of other manufacturers that are working on child-resistant designs that function similarly. With such designs, the lighting efficiency of a child-resistant multi-purpose lighter should be essentially the same as that of the non-child-resistant multi-purpose lighters currently in use.

The Commission is also aware of some multi-purpose lighters that have a feature that can be used to lock the fuel supply open. This allows hands-free operation of the lighter during soldering or similar activities; some consumers find this a useful feature. However, it might be difficult for this type of lighter to comply with a requirement that the child-resistant feature reset when the user puts the lighter down. To retain the potential for hands-free operation, the Commission is specifying that, for lighters that remain lit after being released, the lighter must return automatically to a child-resistant state by the time the user lets go of the lighter after turning off the flame. This scenario is not expected to increase the risk of fires started by children, since the lighter's user would likely turn the lighter off when leaving it for any period of time that would allow access by children.

The Commission is also proposing a requirement to help prevent the dangerous situation where a child who operated the child-resistant mechanism and lit the lighter could create a flame that would not go out when the lighter is released, even if it is dropped. The proposed rule specifies that, after the lighter is lit, an additional manual operation must be performed to activate the feature that allows the lighter to burn without being held by the user.

#### Issue: Consumer Resistance to Child-Resistant Features

Scripto challenges the Commission's position in the ANPR that consumer resistance to a child-resistant feature on multi-purpose lighters will not negate the feature's effectiveness. Scripto states that "many consumers would resist the introduction of child-resistant multi-purpose lighters. Scripto's experience with the tremendous negative reactions to its child-resistant cigarette lighters form a solid basis for this assertion \* \* \*. Consideration must be given to those populations that may be exposed to potentially greater fire hazards if they were physically unable to successfully operate a child resistant multi-purpose lighter. Such individuals may switch to such less safe 'non-CR' alternatives as

long stem matches or a rolled up newspaper \* \* \*."

The Lighter Association, Inc. states that "contrary to the (CPSC) staff's representations, complaints regarding lighters that comply with the rule continue to come in from every region of the country \* \* \*. Industry receives thousands of complaints every year. Products are being invented every month to override child-resistant lighters."

#### Response

Although there were numerous complaints about the safety standard when child-resistant cigarette lighter models first became available in large numbers and non-child-resistant lighters became scarce, the number of complaints from consumers to the Commission has dwindled to almost nothing in 1998. Many of the initial complaints had to do with the difficulty of operating the child-resistant mechanism on the lighter models that were generally available in the marketplace in 1994 and early 1995. These early models usually had a lever or push-in tab to permit the gas release lever to function when the flint wheel was rotated to generate a flame. Later models of child-resistant lighters employ child-resistant features that are integrated into the lighter so that adults can operate the lighters much like they did the non-child-resistant pre-standard roll-and-press lighters.

The proposed rule requires that multi-purpose lighters must not be capable of having its child-resistant mechanism easily deactivated. The Commission interprets this as requiring that the child-resistant mechanism cannot easily be disabled with a common household tool, such as a knife or pliers, and still remain operable.

In the 4 years since the lighter standard became effective, the Commission became aware of two devices that were designed and promoted for defeating the child-resistant mechanisms on certain brands of disposable child-resistant lighter models. CPSC contacted both of those firms to discourage them from selling these devices. If the Commission obtains information indicating that such devices pose a substantial risk of injury to the public, the Commission could seek corrective actions pursuant to Section 15 of the CPSA, 15 U.S.C. 2064. Furthermore, actions could be brought against persons who disable the child-resistant mechanisms on lighters intended for resale.

The Commission would also expect some consumers to write about their dissatisfaction with child-resistant

features on multi-purpose lighters. However, the Commission believes that the level of consumer resistance would not prevent the expected reduction of child-play fires started with multi-purpose lighters. Furthermore, the Commission believes that manufacturers can design child-resistant multi-purpose lighters that offer minimal inconvenience to consumers.

#### Issue: Enforcement

The Lighter Association, Inc., comments, "The record is full of examples of problems with enforcement of the current child resistancy rule \* \* \* Importers are devising new ways every week to evade the rule. Indeed, Compliance has recently advised industry that it is now reviewing non-child-resistant lighters from Europe and Asia being rerouted to the U.S. for sale. Substantial premiums are paid for non-child-resistant lighters."

The Lighter Association, Inc., states that the Commission's enforcement program is inadequate because of the cost of testing to assure compliance. "If the Commission cannot enforce the existing regulation, it is absurd to extend it to another product line. Ultimately, non-complying imports will take over this product line as well."

Scripto states that it has "been disappointed by the Commission's historical failure to evenly enforce the labeling requirements of the Federal Hazardous Substances Act on other multi-purpose lighter distributors." Additionally, Scripto expresses disappointment that the Commission has not taken action against the "Quick Fix," a device being sold to disable the child-resistant mechanism on cigarette lighters. It suggests that the cigarette lighter standard be amended to prohibit the intentional disarming of lighter safety devices. It also recommends that the Commission take a more proactive enforcement stance to prevent further violations of the Cigarette Lighter Standard. "Before moving forward to implement new regulations, the Commission must be prepared to ensure consumers, distributors and manufacturers that any such regulation will be fully enforced, without loopholes and without exception."

Cricket® comments that it has "seen ample anecdotal evidence that disreputable importers have violated, and are continuing to flout, both the stockpiling and substantive requirements of the child-resistancy standard" in spite of information about apparent violations provided to the Commission staff by importers and the Lighter Association.

Cricket® urges the Commission to work for international acceptance of lighter standards to address the enforcement evasion issue.

#### Response

While CPSC is aware that some unscrupulous importers and distributors of lighters have taken actions to circumvent the intent and purposes of the standard, their overall numbers have been small, and hardly constitute a large number of schemes to "evade the rule," as alleged in this comment. CPSC and Customs have taken vigorous action against importers and distributors who do not comply with the standard, seizing and refusing entry to millions of noncomplying lighters since July 1994, working with importers to recall millions of lighters that made it into the marketplace before their noncompliance with the standard was discovered, and filing legal actions against firms that purposely distributed and sold lighters that had the child-resistant feature intentionally removed or disabled prior to sale to the public.

Finally, CPSC and Customs have seized several small shipments that originated in Europe of popular name brand non-child-resistant disposable cigarette lighters manufactured for the European market that were sent to United States importers as premium items with other products intended for sale in the United States. These lighters invariably were decorated with product logos (e.g., liquor or beer brands, or other consumer product logos). They were included in the shipment by the European exporter as advertising items, not products intended to be sold separately from the main goods in the shipment. Evidence in these cases suggests that in almost every instance, the inclusion of the non-child-resistant lighters in the shipment was done due to ignorance of the standard on the part of the exporter in Europe, not on an intentional attempt to thwart the safety standard. Based on this experience with the cigarette lighter standard, the Commission concludes that the compliance with a multi-purpose lighter standard will be sufficient to produce the benefits discussed above.

#### Issue: Requirements

Scripto comments, "The cigarette lighter experience has seen the approval of some mechanisms which are so easy to operate that safety objectives are compromised \* \* \*. Any device which lends child resistancy to a product must be more inconvenient to use or it will not be effective \* \* \*. Therefore, definitions must recognize and clarify

this fundamental trade-off between safety and convenience."

#### Response

The Safety Standard for Cigarette Lighters requires manufacturers to conduct testing to assure that their lighters comply with all of the requirements. The manufacturers are also required to report the results of this testing to CPSC's Office of Compliance and to certify to their distributors or retailers that the lighters comply. If there is any reason to believe that the lighters are not child resistant, the Office of Compliance requests further substantiation from the manufacturer. Additionally, a program is in place at CPSC to conduct enforcement testing of cigarette lighters where warranted.

In regard to Scripto's recommendation that definitions be developed to preclude child-resistant mechanisms that are too easy to operate, the Commission points out that, just like the cigarette lighter standard, the proposed standard for multi-purpose lighters is drafted as a performance standard rather than a design standard. Any multi-purpose lighter, however designed, that meets the requirements in the proposed rule would be considered child resistant:

#### Issue: Market Impact

Swedish Match stated:

The market for the multi-purpose lighters is totally different from the one analyzed by the CPSC in connection with the cigarette lighter standard. As there are fewer competitors, we strongly urge the CPSC to study closely the likely competitive impact of the imposition of a child resistancy requirement on the multi-purpose lighter industry \* \* \*. Any company would have to consider whether it could absorb successfully the added research, development, and production costs that surely would be associated with the standard and still remain competitive in the market \* \* \*. Many firms (especially those with a marginal position in the market place) likely will react to the standard by exiting the market, thereby resulting in less competition and higher prices to be borne by the consuming public.

#### Response

The market for multi-purpose lighters is obviously smaller than the market for cigarette lighters, in terms of both the number of units sold annually and the number of manufacturers. It is conceivable that some firms may react to the standard by exiting the market. However, the CPSC does not agree that this will likely have a significant adverse impact on competition.

Currently, the market for multi-purpose lighters already is highly concentrated, with one manufacturer having approximately a 90 percent

market share. However, CPSC expects that the degree of competition in the market may increase. One major cigarette lighter manufacturer recently entered the market for multi-purpose lighters with a model that is child resistant. Additionally, the market for multi-purpose lighters is growing at a rate of 5 to 10 percent annually, according to industry sources. As the market expands, more manufacturers may enter and thereby increase the level of competition. Furthermore, multi-purpose lighters face competition from other flame sources, including matches and cigarette lighters. These products are less expensive than multi-purpose lighters and, therefore, limit the amount that manufacturers can increase prices for multi-purpose lighters without significant sales loss, even if there are few manufacturers in the market. Finally, CPSC expects that only manufacturers with a minor presence in the market might exit. The loss of these firms would not substantially reduce the level of competition in this already highly-concentrated industry.

#### **Issue: International Application**

Swedish Match commented that one way to attempt to address the concern about the evasion of a standard by foreign manufacturers is "the adoption, internationally of any standard that is applied in the United States."

#### **Response**

The CPSC agrees that international adoption of the standard would reduce the likelihood that some manufacturers or importers would attempt to evade the requirements of the rule. However, CPSC does not have the authority to regulate products intended solely for use in other countries.

#### **Issue: Lulling Effect**

The Lighter Association and Scripto-Tokai stated that "child resistant" is often incorrectly construed by the general public as "childproof." They argue that this can create a false sense of security and sometimes results in parents taking less care to protect children from the product.

#### **Response**

The CPSC agrees that parents sometimes mistake child resistant as meaning childproof. However, the evidence suggests that the impact is less significant than some claim. For example, studies of poisoning deaths of children have shown that child-resistant packages have been effective in reducing poisonings in young children. Therefore, on balance, even if some parents do become less vigilant, the

overall impact of the rule is expected to be positive.

#### **Issue: Estimates of Incidents**

The Lighter Association states that the Commission improperly used a peak year or years of injuries and fatalities for its cost-benefit analysis, rather than an average over a more reasonable period.

#### **Response**

In the preliminary regulatory analysis included in this notice, the Commission based its estimates on the incidents of which CPSC is aware that occurred from 1995 through 1997. These are the best data available. CPSC did not have a special project or study that attempted to collect data before 1995, and, therefore, data before that time are incomplete. Furthermore, our analysis of the data from 1995 through 1997 may understate the number of fires involving multi-purpose lighters because they consist strictly of cases of which the CPSC is aware. There are likely other cases of which the Commission is not aware. Finally, preliminary data suggest that the 1998 experience will be similar to the period 1995 to 1997. Already in 1998, the CPSC knows of 33 fires that resulted in 7 deaths and 14 injuries. The actual number is probably higher.

#### **Issue: Costs of Modifying Lighters**

The Lighter Association and Scripto-Tokai commented that the Commission underestimates the costs of modifying multi-purpose lighters and ignored the Lighter Association-provided data that it would cost \$.25 to \$.75 per unit to modify multi-purpose lighters.

#### **Response**

These commenters are referring to a preliminary examination of the economic issues made by the Commission that was based on very limited data. The regulatory analysis included with this notice is based on more recent data, including the Lighter Association's estimates of costs.

Comments provided by the Lighter Association, and conversations between the CPSC's staff and several manufacturers, suggest that the upper end of the industry's cost estimates were based on the assumption that the proposed rule would contain provisions which it does not (e.g., requiring a minimum level of reliability in achieving ignition on each attempt). Therefore, the Commission believes that the low and middle ranges of the cost estimates provided by the Lighter Association are more reasonable. The cost estimate included in the preliminary regulatory analysis was \$.40 per unit. This is roughly in the

mid-range of these estimates. Even if retail markups added another \$.40/unit to the retail price, the proposed rule would result in net benefits of \$.53 per multi-purpose lighter sold.

#### **Issue: Costs of Development**

The Lighter Association and Scripto-Tokai argued that it should be understood that the technology for cigarette lighters cannot simply be added to a multi-purpose lighter. Rather, the multi-purpose lighter must be completely redesigned, resulting in research and development costs, investment in new equipment or retooling of existing equipment, testing of the product, and further review of the product. These commenters contend that the Commission's assumption that one simply takes an existing child-resistant feature and adds it to a multi-purpose lighter is simplistic and inaccurate.

#### **Response**

CPSC is aware that manufacturers will incur costs to develop and test new designs for child-resistant multi-purpose lighters, as well as to retool their plants for production. The CPSC accounted for these costs in its preliminary regulatory analysis, which is based on the information currently available (much of it provided by industry). CPSC does not assume that any particular child-resistant design can be adapted from a cigarette lighter to a multi-purpose lighter without further development, if at all. CPSC welcomes additional information on these costs from manufacturers or other parties with such knowledge, and will include the most recent cost information in any future analysis of this issue.

#### **Issue: Need for Regulation of Matches**

Scripto-Tokai stated that the 750 injuries and 140 deaths attributable to children playing with matches in 1994 represents a societal cost in the billions of dollars, as opposed to \$10.2 million for children playing with multi-purpose lighters. The commenter concludes that there would be a far greater benefit in regulating matches than multi-purpose lighters.

#### **Response**

The CPSC is concerned about the societal costs of fires attributable to children playing with matches. However, in taking action to address a problem, it is necessary to take into account the feasibility of a solution and its costs, as well as its benefits. The manner in which multi-purpose lighters are operated can be changed in ways that will substantially reduce the



number of incidents resulting from children playing with multi-purpose lighters. Such changes will increase societal benefits more than they will increase societal costs. According to the preliminary regulatory analysis, the proposed rule is expected to result in substantial net benefits to consumers. The fact that the Commission might investigate or regulate other products, which present their own feasibility and cost-benefit issues, does not counsel against action on multi-purpose lighters.

### **I. Preliminary Environmental Assessment**

Pursuant to the National Environmental Policy Act and in accordance with CPSC's procedures, the Commission considered the potential environmental effects of the proposed rule. Less than 1 percent of the approximately 20 million non-child-resistant multi-purpose lighters that are sold in this country each year are manufactured domestically. One large manufacturer has begun to produce multi-purpose lighters domestically, but these lighters are already child resistant.

The proposed rule is not expected to significantly alter the amount of materials, energy, or waste generated during production of the lighters. Nor is the proposed rule expected to cause manufacturers to shift production to other countries or locations. Molds and other tools used by manufacturers in the production of multi-purpose lighters or their components are periodically replaced. The proposed rule may cause some manufacturers to replace the molds and other tools earlier than they would have otherwise. However, the proposed effective date of 1 year from the publication date of a final rule should allow manufacturers time to plan and minimize any impact.

Pursuant to section 9(g)(1) of the CPSA, 15 U.S.C. 2058(g)(1), the proposed rule does not apply to non-child-resistant lighters manufactured before the rule's effective date. Therefore, no non-child-resistant lighters in use or in U.S. commerce on the effective date will need to be recalled or disposed of. Accordingly, there are not disposal issues with regard to such lighters. Further, the proposed rule is not expected to affect the manner in which multi-purpose lighters are packaged for sale or the amount of butane or other fuel used in the operation of the lighters.

From the available information, the Commission concludes that the proposed rule would not significantly affect raw material use, air or water quality, manufacturing processes or disposal practices in such a way as to

cause any significant impact on the environment.

### **J. Paperwork Reduction Act**

As explained above, the standard and certification provisions will require manufacturers and importers of multi-purpose lighters to perform testing, maintain records, and report data to the Commission relating to the multi-purpose lighters that they produce or import. For this reason, the rule published below contains "collection of information requirements," as that term is used in the Paperwork Reduction Act, 44 U.S.C. 3501-3520. Therefore, the proposed rule has been submitted to the Office of Management and Budget ("OMB") in accordance with 44 U.S.C. 3507(d) and implementing regulations codified at 5 CFR 1320.11.

Based on estimates made in the course of developing the cigarette lighter standard and on information obtained from industry sources, the Commission estimates that complying with the testing, recordkeeping, and reporting requirements of the proposed rule will require approximately 100 hours per model annually. The time required for testing is expected to average about 80 hours per model per year. The time required for recordkeeping and reporting is expected to be about 10 hours for each model per year. The exact number of manufacturers and importers is not known. However, the number of manufacturers and importers appears to be increasing. Currently, the Commission believes that there may be as many as 40 different models of multi-purpose lighters on the market. With a few exceptions, most manufacturers and importers have only one model. Therefore, the total amount of time that will be required for complying with the testing, recordkeeping, and reporting requirements of the proposed rule is approximately 4,000 hours annually.

OMB may comment to CPSC between 30 and 60 days after the publication of the proposal. Therefore, although OMB will accept comments until November 30, 1998, a comment will be assured of having its maximum effect if it is filed by October 30, 1998.

Comments to OMB should be directed to the Desk Officer for the Consumer Product Safety Commission, Office of Information and Regulatory Affairs, OMB, Washington, DC 20503; telephone (202)395-7340. The Commission encourages commenters to provide copies of such comments to the Commission's Office of the Secretary, with a caption or cover letter identifying the materials as comments submitted to OMB on the proposed collection of

information requirements for multi-purpose lighters.

### **K. Initial Regulatory Flexibility Analysis**

When an agency undertakes a rulemaking proceeding, the Regulatory Flexibility Act ("RFA"), 5 U.S.C. 601 et seq., generally requires the agency to prepare initial and final regulatory flexibility analyses describing the impact of the rule on small businesses and other small entities. The purpose of the RFA, as stated in section 2(b) (5 U.S.C. 602 note), is to require agencies, consistent with their objectives, to fit the requirements of regulations to the scale of the businesses, organizations, and governmental jurisdictions subject to the regulations.<sup>15</sup>

Section 603 of the RFA calls for the Commission to prepare and make available for public comment an initial regulatory flexibility analysis describing the impact of the proposed rule on small entities and identifying impact-reducing alternatives. The initial regulatory flexibility analysis is to contain:

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

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

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

(4) A description of the projected reporting, recordkeeping, and other compliance requirements of the proposed rule, including an estimate of the classes of small entities subject to the requirements and the type of professional skills necessary for the preparation of reports or records; and

(5) An identification, to the extent possible, of all relevant Federal rules that may duplicate, overlap, or conflict with the proposed rule.

In addition, the initial regulatory flexibility analysis must describe any significant alternatives to the proposed rule that would accomplish the stated objectives of the applicable statutes and that would minimize any significant economic impact of the proposed rule on small entities. RFA-suggested alternatives for discussion include: different compliance or reporting requirements for small entities; clarification, consolidation, or simplification of compliance or

<sup>15</sup> The Regulatory Flexibility Act provides that an agency is not required to prepare a regulatory flexibility analysis if the head of the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. 5 U.S.C. 605.

reporting requirements for small entities; the use of performance rather than design standards; and partial or total exemptions from coverage for small entities.

The Commission routinely considers the potential effects on competition and small businesses as part of the agency's overall evaluation of potential economic effects of rulemaking actions. A summary of these effects is included in the preliminary regulatory analysis required for the proposed rule under section 9(c) of the CPSA. Since some number of the affected firms are considered to be small companies, the Commission gives particular consideration to the potential economic effects of the proposed rule on such firms, and is issuing this initial regulatory flexibility analysis of the proposed rule.

#### *Reasons for Agency Action*

The Commission's proposed rule on multi-purpose lighters addresses the risk of death and injury from accidental residential fires started by young children playing with these lighters. Detailed data concerning these fires is presented in Section B of this notice.

The Commission is required to consider whether appropriate voluntary standards could adequately address the problem rather than imposing a mandatory rule. However, no voluntary standard was submitted to the Commission for its consideration in response to the ANPR, and the Commission is not aware of any voluntary standard that addresses the problem. Therefore, deferring to a voluntary standard does not represent an adequate alternative to the proposed mandatory rule.

#### *Objectives of and Legal Basis for the Proposed Rule*

The history of this rulemaking proceeding is set forth in Section A of this notice. The legal basis for this action is described in Section E of this notice, which discusses the Commission's statutory authorities. Other than the definition of the covered product, the provisions of the proposed rule are essentially the same as the Safety Standard for Cigarette Lighters, 16 CFR Part 1210.

The purpose of the proposed rule is to reduce the risk of accidental child-play multi-purpose lighter fires. It is expected that making multi-purpose lighters child-resistant will substantially reduce the incidence and cost to society of these fires. The rule is being proposed under the authority of the CPSA. Section 9(c) of the CPSA requires the agency to consider economic effects of

the proposed rule on industry and consumers, and to consider alternatives that might reduce the burden of the rule generally.

#### *Requirements of the Proposed Rule*

The proposed rule contains performance requirements that would require all lighters that meet the definition of a multi-purpose lighter to be child-resistant. It also describes the test protocol to be used in establishing and verifying compliance. The protocol prescribes tests in which panels of young children attempt to operate modified or non-fuel-containing multi-purpose lighters. Manufacturers and importers would be required to label individual lighters, certify that their products comply with the rule, provide evidence of a reasonable testing program to support such certification, maintain testing and production records, and provide reports and product samples to the Commission.

Most manufacturers would build modified or surrogate lighters to perform the test protocol. Complying lighter designs would be those for which the test lighters or surrogates were successfully operable by fewer than 15 percent of children tested. All multi-purpose lighters manufactured or imported 12 months after the date of publication of a final rule in the **Federal Register** would have to comply. In addition, proposed anti-stockpiling provisions would limit the production or importation of noncomplying lighters between the publication date and the effective date of a final rule.

#### *Firms Subject to the Proposed Rule and Possible Impacts*

The proposed rule covers manufacturers and importers of multi-purpose lighters intended for sale to consumers. The number of firms that manufacture or import these lighters is increasing. While at least 30 firms have been identified, there probably are other companies that manufacture or import multi-purpose lighters in the U.S. that have not been identified. With the exception of one large manufacturer and perhaps one other smaller manufacturer, all firms are believed to be importers rather than domestic manufacturers. Several of the firms are affiliates or subsidiaries of larger firms or foreign manufacturers.

The Commission examined the information available on 30 firms that were identified as being manufacturers, importers, or private labelers of multi-purpose lighters. Of these, 16 are believed to have fewer than 100 employees and are, therefore, considered to be small businesses

according to size standards established by the Small Business Administration. 13 CFR 121.601. Of these 16 small businesses, 12 are believed to be importers that also sell products other than multi-purpose lighters. One of these firms may manufacture its own multi-purpose lighters. At least two importers have lighters that are produced exclusively for them by foreign manufacturers. The information available was not sufficient to make such determinations on the remaining 3 small businesses. One small firm claims that its multi-purpose lighter has child-resistant features. However, it has not tested its product according to the requirements of the proposed rule.

Most of the small importers and private labelers distribute lighters produced by foreign manufacturers. It is likely that the manufacturers will bear most of the costs for development and testing of the child-resistant models and amortize these costs over several years of production. These costs, as well as increases in the costs of production attributable to the child-resistant mechanism, are expected to be passed through importers and private labelers to the consuming public.

Some small importers may experience some disruption in their supply of multi-purpose lighters if some of the foreign suppliers opt not to develop child-resistant multi-purpose lighters. However, the 12-month period between the publication of the final rule and its effective date should allow time for most importers to take action to ensure that they have a source for child-resistant multi-purpose lighters. Many of the smaller importers of multi-purpose lighters appear to be primarily engaged in manufacturing or importing other products, such as housewares, kitchen and barbecue utensils, hardware products, cigarette lighters, and other tobacco accessories. Multi-purpose lighters probably account for only a small percentage of these importers' sales. Therefore, even if a small importer stopped distributing multi-purpose lighters, it probably would not suffer a significant adverse effect if sales of multi-purpose lighters accounted for only a small percentage of the firm's total sales.

Since the rule contains performance requirements, rather than requiring a specific technology, it allows flexibility to firms in designing child-resistant mechanisms. This should reduce the burden of compliance on many firms, both large and small. However, some small firms that manufacture their own multi-purpose lighters may not have the technical or financial resources to develop lighters that would meet the

proposed rule. It is also possible that some small manufacturers will determine that the cost of developing a product that complies with the proposed rule is too high relative to their market share or output level. This could lead some small manufacturers to leave the market. However, the number of small firms that actually manufacture their own multi-purpose lighters is believed to be low. As noted above, the Commission is aware of only one small firm that may manufacture its own lighters and two small firms that have their proprietary designs of lighters that are manufactured for them overseas.

Small manufacturers and importers would be subject to all of the performance, testing, certification, and reporting provisions of the proposed rule. Although some small manufacturers and importers may not possess the necessary skills to conduct the required testing, there are independent quality control and engineering laboratories, and other private consultants, that could perform the required testing with which these firms could contract. Records of the testing would probably be compiled by the testing laboratory and maintained by the manufacturer personnel. Copies of the reports and certification records would probably be maintained by the importers or their legal counsels.

The proposed rule allows importers to rely on testing that has been performed by or for a foreign manufacturer to support the certification and reporting requirements of the proposed rule, provided that the records: (1) Are in English, (2) are complete, (3) can be provided to the Commission within a reasonable time period, if requested, and (4) provide reasonable assurance the multi-purpose lighters are child resistant. This provision may reduce the testing burden on some small importers, since some manufacturers may supply product to more than one importer.

The reporting requirements of the proposed rule are necessary for the CPSC to monitor compliance. The Commission is not aware of any method by which the reporting burden on small businesses could be reduced while still accomplishing the purpose of the proposed rule. The estimated reporting burden, however, is low, probably less than 100 hours per model per year.

#### *Other Federal Rules*

No Federal rules are known to exist that may duplicate, overlap, or conflict with the proposed rule. Although the Cigarette Lighter Safety Standard is similar to the proposed rule, multi-purpose lighters are not subject to that rule, because multi-purpose lighters are

not intended primarily for lighting tobacco products.

#### *Alternatives to the Proposed Rule*

The Commission considered four basic alternatives to certain elements of the proposed rule. Specifically, the CPSC considered (1) narrowing the scope to exclude micro-torches and the more expensive multi-purpose lighters, (2) requiring only additional labeling, (3) taking no action and relying on voluntary efforts, and (4) changing the effective date.

#### *Narrowing the Scope*

The CPSC considered excluding from coverage of the proposed rule the more expensive multi-purpose lighters, some of which retail for more than \$20, as opposed to the less than \$8 for which most multi-purpose lighters retail. This would have been similar to the exemption in the cigarette lighter standard for lighters with a customs value or ex-factory value greater than \$2.00. The CPSC also considered excluding micro-torches from coverage.

Industry sources believe that the market share of the more expensive multi-purpose lighters, including micro-torches, is low, probably accounting for less than three percent of the unit sales. There are three firms that are known to market high-end multi-purpose lighters. All of these firms have fewer than 100 employees and are considered to be small businesses. (One firm claims that its multi-purpose lighter has features that should make it child-resistant.) Of the six firms that are known to distribute micro-torches, three have fewer than 100 employees and are considered to be small businesses.

While excluding the more expensive multi-purpose lighters from the scope of the proposed rule might reduce the impact of the rule on some small businesses, the CPSC does not have evidence that these multi-purpose lighters are less likely to be involved in child-play fires than the less expensive models. Baseline testing indicates that some of the more expensive models are at least as easy to operate as some less expensive models. And, there is no evidence that the more expensive multi-purpose lighters are stored or used differently around the home than are the less expensive lighters. Therefore, the Commission determined that the more expensive multi-purpose lighters and micro-torches should be required to meet the same child-resistance standard that the less expensive ones must meet.

#### *Labeling Requirements*

Although a labeling-only requirement would significantly reduce the burden

of the proposed rule on all firms, large and small, the Commission did not believe that any additional labeling would have a significant impact on the incidence of child-play fires.

Furthermore, all multi-purpose lighter labels are already labeled "Keep out of reach of children." Therefore, a labeling-only rule was not considered to be a preferable alternative to the proposed rule.

#### *Taking No Action or Relying on a Voluntary Standard*

Because there currently is no voluntary standard for child-resistance for multi-purpose lighters and none is being developed, relying on a voluntary standard is not an alternative for the Commission. Additionally, it seems unlikely that many firms would voluntarily market child-resistant multi-purpose lighters in the absence of a mandatory standard. If the non-child-resistant multi-purpose lighters cost less than the child-resistant lighters, the manufacturers of child-resistant lighters would be at a cost disadvantage in the marketplace, resulting in a limited market share for the child-resistant lighters. Consequently, reliance on voluntary efforts would not adequately address the hazard associated with multi-purpose lighters.

#### *Summary and Conclusions*

The proposed rule for multi-purpose lighters will affect all manufacturers and importers of such lighters in the U.S. Perhaps half or more of these firms would be considered to be small businesses. Most of the small firms are believed to be importers of lighters manufactured by foreign suppliers. These importers will be impacted by the proposed rule's certification, recordkeeping, and reporting requirements. The higher costs of manufacturing child-resistant lighters incurred by their suppliers will likely be passed onto to these firms as well. Some of the firms may also have temporary disruptions in their supply of multi-purpose lighters. However, it is uncertain whether any of these effects would be "significant."

In addition to the small importers, there may be a few small firms that manufacture their own multi-purpose lighters or have their own proprietary designs manufactured for them. The proposed rule may have a significant impact on these firms if the firms do not have the technical expertise or resources to develop child-resistant mechanisms for their multi-purpose lighters.

Some alternatives to the proposed rule were considered that might have reduced the burden on small

manufacturers. However, these alternatives were rejected, since the number of injuries would be larger. These alternatives included taking no action, requiring additional labeling only, exempting micro-torches or the more expensive multi-purpose lighters from the scope of the proposed rule, and different effective dates.

#### L. Executive Orders

This proposed rule has been evaluated in accordance with Executive Order No. 12,612, and the rule raises no substantial federalism concerns.

Executive Order No. 12,988 requires agencies to state the preemptive effect, if any, to be given to the regulation. The preemptive effect of this rule is established by 15 U.S.C. 2075(a), which states:

(a) Whenever a consumer product safety standard under the CPSA applies to a risk of injury associated with a consumer product, no State or political subdivision of a State shall have any authority either to establish or continue in effect any provision of a safety standard or regulation which prescribed any requirements as to the performance, composition, contents, design, finish, construction, packaging, or labeling of such products which are designed to deal with the same risk of injury associated with such consumer product, unless such requirements are identical to the requirements of the Federal standard.

Subsection (b) of 15 U.S.C. 2075 provides a circumstance under which subsection (a) does not prevent the Federal Government or the government of any State or political subdivision of a State from establishing or continuing in effect a safety standard applicable to a consumer product for its own (governmental) use, and which is not identical to the consumer product safety standard applicable to the product under the CPSA. This occurs if the Federal, State, or political subdivision requirement provides a higher degree of protection from such risk of injury than the consumer product safety standard.

Subsection (c) of 15 U.S.C. 2075 authorizes a State or a political subdivision of a State to request an exemption from the preemptive effect of a consumer product safety standard. The Commission may grant such a request, by rule, where the State or political subdivision standard or regulation (1) provides a significantly higher degree of protection from such risk of injury than does the consumer product safety standard and (2) does not unduly burden interstate commerce.

#### M. Extension of Time To Issue Final Rule

Section 9(d)(1) of the CPSA, 15 U.S.C. 2058(d)(1), provides that a final

consumer product safety rule must be published within 60 days of publication of the proposed rule unless the Commission extends the 60-day period for good cause and publishes its reasons for the extension in the **Federal Register**.

Executive Order No. 12662, which implements the United States-Canada Free-Trade Implementation Act, provides that publication of standards-related measures shall ordinarily be at least 75 days before the comment due date. Accordingly, the Commission provided a comment period of 75 days for this proposal.

After the comment period ends, the CPSC's staff will need to prepare draft responses to the comments, along with a draft regulatory analysis and either a draft regulatory flexibility analysis or a draft finding of no substantial impact on a significant number of small entities. Then the staff will prepare a briefing package for the Commission. The Commission is likely to then be briefed, and will later vote on whether to issue a final rule. The Commission expects that this additional work will take about 9 months. Accordingly, the Commission extends the time by which it must either issue a final rule or withdraw the NPR until June 30, 1999. If necessary, this date may be further extended.

#### List of Subjects in 16 CFR Part 1212

Consumer protection, Fire prevention, Hazardous materials, Infants and children, Labeling, Packaging and containers, Reporting and recordkeeping requirements, Multi-purpose lighters.

For the reasons set out in the preamble, the Commission proposes to amend Title 16, Chapter II, Subchapter B, of the Code of Federal Regulations as set forth below.

1. A new part 1212 is added to read as follows:

#### PART 1212—SAFETY STANDARD FOR MULTI-PURPOSE LIGHTERS

##### Subpart A—Requirements for Child-Resistance

Sec.

1212.1 Scope and application.

1212.2 Definitions.

1212.3 Requirements for multi-purpose lighters.

1212.4 Test protocol.

1212.5 Findings.

##### Subpart B—Certification Requirements

1212.11 General.

1212.12 Certificate of compliance.

1212.13 Certification tests.

1212.14 Qualification testing.

1212.15 Specifications.

1212.16 Production testing.

1212.17 Recordkeeping and reporting.

1212.18 Refusal of importation.

#### Subpart C—Stockpiling

1212.20 Stockpiling.

#### Subpart A—Requirements for Child-Resistance

**Authority:** 15 U.S.C. 2056, 2058, 2079(d).

##### § 1212.1 Scope and application.

This part 1212, a consumer product safety standard, prescribes requirements for multi-purpose lighters. These requirements are intended to make the multi-purpose lighters subject to the standard's provisions resistant to successful operation by children younger than 5 years of age. This standard applies to all multi-purpose lighters, as defined in § 1212.2, that are manufactured or imported after the date that is 12 months after publication of a final rule in the **Federal Register**.

##### § 1212.2 Definitions.

As used in this part 1212:

(a)(1) *Multi-purpose lighter*, (also known as grill lighter, fireplace lighter, utility lighter, micro-torch, or gas match) means: A hand-held, self-igniting, flame-producing product that operates on fuel and is used by consumers to ignite items such as candles, fuel for fireplaces, charcoal or gas-fired grills, camp fires, camp stoves, lanterns, fuel-fired appliances or devices, or pilot lights, or for uses such as soldering or brazing.

(2) The following products are not multi-purpose lighters:

(i) Devices intended primarily for igniting smoking materials that are within the definition of "lighter" in the safety standard for cigarette lighters (16 CFR 1210.2(c)).

(ii) Devices containing more than 10 oz. of fuel.

(iii) Matches.

(b) *Successful operation* means one signal of any duration from a surrogate multi-purpose lighter within either of the two 5-minute test periods specified in § 1212.4(f).

(c) "Surrogate multi-purpose lighter" means a device that approximates the appearance, size, shape, and weight of, and is identical in all other factors that affect child resistance (including operation and the force(s) required for operation), within reasonable manufacturing tolerances, to, a multi-purpose lighter intended for use by consumers, has no fuel, does not produce a flame, and produces an audible, or audible and visual, signal that will be clearly discernible when the surrogate multi-purpose lighter is activated in each manner that would produce a flame in a fueled production multi-purpose lighter. (This definition does not require a multi-purpose lighter

to be modified with electronics or the like to produce a signal. Manufacturers may use a multi-purpose lighter without fuel as a surrogate multi-purpose lighter if a distinct audible signal, such as a "click," can be heard clearly when the mechanism is operated in each manner that would produce a flame in a production lighter and if a flame cannot be produced in a production multi-purpose lighter without the signal. But see § 1212.4(f)(1).

(d) *Child-resistant mechanism* means the mechanism of a multi-purpose lighter that makes the lighter resist successful operation by young children, as specified in § 1212.3.

(e) *Model* means one or more multi-purpose lighters from the same manufacturer or importer that do not differ in design or other characteristics in any manner that may affect child resistance. Lighter characteristics that may affect child resistance include, but are not limited to, size, shape, case material, and ignition mechanism (including child-resistant features).

#### § 1212.3 Requirements for multi-purpose lighters.

(a) A multi-purpose lighter subject to this part 1212 shall be resistant to successful operation by at least 85 percent of the child-test panel when tested in the manner prescribed by § 1212.4.

(b) A multi-purpose lighter must:

(1) allow multiple operations of the ignition mechanism (with fuel flow) without further operation of the child-resistant mechanism, unless the lighter requires only one motion to both:

(i) Overcome the child-resistant mechanism and

(ii) Ignite the fuel,

(2) Not allow the lighter to remain lit after the user has let go unless an additional manual operation is performed after the lighter is lit,

(3) Return automatically to the child-resistant condition either:

(i) When or before the user lets go of the lighter or

(ii) For multi-purpose lighters that remain lit after the users have let go, when or before the user lets go of the lighter after turning off the flame,

(4) Operate safely when used in a normal and convenient manner,

(5) Comply with this § 1212.3 for the reasonably expected life of the lighter, and

(6) Not be capable of having its child-resistant mechanism easily deactivated or prevented from complying with this § 1212.3.

#### § 1212.4 Test protocol.

(a) *Child test panel.* (1) The test to determine if a multi-purpose lighter is

resistant to successful operation by children uses a panel of children to test a surrogate multi-purpose lighter representing the production multi-purpose lighter. Written informed consent shall be obtained from a parent or legal guardian of a child before the child participates in the test.

(2) The test shall be conducted using at least one, but no more than two, 100-child test panels in accordance with the provisions of § 1212.4(f).

(3) The children for the test panel shall live within the United States.

(4) The age and sex distribution of each 100-child panel shall be:

(i)  $30 \pm 2$  children ( $20 \pm 1$  males;  $10 \pm 1$  females) 42 through 44 months old;

(ii)  $40 \pm 2$  children ( $26 \pm 1$  males;  $14 \pm 1$  females) 45 through 48 months old;

(iii)  $30 \pm 2$  children ( $20 \pm 1$  males;  $10 \pm 1$  females) 49 through 51 months old.

**Note:** To calculate a child's age in months: Subtract the child's birth date from the test date. The following calculation shows how to determine the age of the child at the time of the test. Both dates are expressed numerically as Month-Day-Year.

Example: Test Date (e.g., 8/3/94) minus Birth Date—(e.g., 6/23/90). Subtract the number for the year of birth from the number for the year of the test (i.e.,  $94 - 90 = 4$ ). Multiply the difference in years by 12 months (i.e.,  $4 \text{ years} \times 12 \text{ months} = 48 \text{ months}$ ). Subtract the number for the month of the birth date from the number of the month of the test date (i.e.,  $8 - 6 = 2 \text{ months}$ ). Add the difference in months obtained above to the number of months represented by the difference in years described above ( $48 \text{ months} + 2 \text{ months} = 50 \text{ months}$ ). If the difference in days is greater than 15 (e.g., 16, 17 \* \* \*), add 1 month. If the difference in days is less than -15 (e.g., -16, -17), subtract 1 month (e.g.,  $50 \text{ months} - 1 \text{ month} = 49 \text{ months}$ ). If the difference in days is between -15 and 15 (e.g., -15, -14, \* \* \* 14, 15), do not add or subtract a month.

(5) No child with a permanent or temporary illness, injury, or handicap that would interfere with the child's ability to operate the surrogate multi-purpose lighter shall be selected for participation.

(6) Two children at a time shall participate in testing of surrogate multi-purpose lighters. Extra children whose results will not be counted in the test may be used if necessary to provide the required partner for test subjects, if the extra children are within the required age range and a parent or guardian of each such child has signed a consent form.

(7) No child shall participate in more than one test panel or test more than one surrogate multi-purpose lighter. No child shall participate in both surrogate multi-purpose lighter testing and either

surrogate cigarette lighter testing or child-resistant package testing on the same day.

(b) *Test sites, environment, and adult testers.* (1) Surrogate multi-purpose lighters shall be tested within the United States at 5 or more test sites throughout the geographical area for each 100-child panel if the sites are the customary nursery schools or day care centers of the participating children. No more than 20 children shall be tested at each site. In the alternative, surrogate multi-purpose lighters may be tested within the United States at one or more central locations, provided the participating children are drawn from a variety of geographical locations.

(2) Testing of surrogate multi-purpose lighters shall be conducted in a room that is familiar to the children on the test panel (for example, a room the children frequent at their customary nursery school or day care center). If the testing is conducted in a room that initially is unfamiliar to the children (for example, a room at a central location), the tester shall allow at least 5 minutes for the children to become accustomed to the new environment before starting the test. The area in which the testing is conducted shall be well-lighted and isolated from distractions. The children shall be allowed freedom of movement to work with their surrogate multi-purpose lighters, as long as the tester can watch both children at the same time. Two children at a time shall participate in testing of surrogate multi-purpose lighters. The children shall be seated side by side in chairs approximately 6 inches apart, across a table from the tester. The table shall be normal table height for the children, so that they can sit up at the table with their legs underneath and so that their arms will be at a comfortable height when on top of the table. The children's chairs shall be "child size."

(3) Each tester shall be at least 18 years old. Five or 6 adult testers shall be used for each 100-child test panel. Each tester shall test an approximately equal number of children from the 100-child test panel ( $20 \pm 2$  children each for 5 testers and  $17 \pm 2$  children each for 6 testers).

**Note:** When a test is initiated with five testers and one tester drops out, a sixth tester may be added to complete the testing. When a test is initiated with six testers and one tester drops out, the test shall be completed using the five remaining testers. When a tester drops out, the requirement for each tester to test an approximately equal number of children does not apply to that tester. When testing is initiated with five testers, no tester shall test more than 19 children until

it is certain that the test can be completed with five testers.

(c) *Surrogate multi-purpose lighters.*

(1) Six surrogate multi-purpose lighters shall be used for each 100-child panel. The six multi-purpose lighters shall represent the range of forces required for operation of multi-purpose lighters intended for use. All of these surrogate multi-purpose lighters shall have the same visual appearance, including color. The surrogate multi-purpose lighters shall be labeled with sequential numbers beginning with the number one. The same six surrogate multi-purpose lighters shall be used for the entire 100-child panel. The surrogate multi-purpose lighters may be used in more than one 100-child panel test. The surrogate multi-purpose lighters shall not be damaged or jarred during storage or transportation. The surrogate multi-purpose lighters shall not be exposed to extreme heat or cold. The surrogate multi-purpose lighters shall be tested at room temperature. No surrogate multi-purpose lighter shall be left unattended.

(2) Each surrogate multi-purpose lighter shall be tested by an approximately equal number of children in a 100-child test panel ( $17 \pm 2$  children).

**Note:** If a surrogate multi-purpose lighter is permanently damaged, testing shall continue with the remaining multi-purpose lighters. When a multi-purpose lighter is dropped out, the requirement that each multi-purpose lighter be tested by an approximately equal number of children does not apply to that lighter.

(3) Before each 100-child panel is tested, each surrogate multi-purpose lighter shall be examined to verify that it approximates the appearance, size, shape, and weight of a production multi-purpose lighter intended for use.

(4) Before and after each 100-child panel is tested, force measurements shall be taken on all operating components that could affect child resistance to verify that they are within reasonable operating tolerances for the corresponding production multi-purpose lighter.

(5) Before and after testing surrogate multi-purpose lighters with each child, each surrogate multi-purpose lighter shall be operated outside the presence of any child participating in the test to verify that the surrogate multi-purpose lighters produce a signal. If the surrogate multi-purpose lighter will not produce a signal before the test, it shall be repaired before it is used in testing. If the surrogate multi-purpose lighter does not produce a signal when it is operated after the test, the results for the preceding test with that multi-purpose

lighter shall be eliminated. An explanation shall be recorded on the data collection record. The multi-purpose lighter shall be repaired and tested with another eligible child (as one of a pair of children) to complete the test panel.

(d) *Encouragement.* (1) Prior to the test, the tester shall talk to the children in a normal and friendly tone to make them feel at ease and to gain their confidence.

(2) The tester shall tell the children that he or she needs their help for a special job. The children shall not be promised a reward of any kind for participating, and shall not be told that the test is a game or contest or that it is fun.

(3) The tester shall not discourage a child from attempting to operate the surrogate multi-purpose lighter at any time (either verbally or with body language such as facial expressions), unless a child is in danger of hurting himself or another child. The tester shall not discuss the dangers of multi-purpose lighters or matches with the children to be tested prior to the end of the 10-minute test.

(4) Whenever a child has stopped attempting to operate the surrogate multi-purpose lighter for a period of approximately one minute, the tester shall encourage the child to try by saying "keep trying for just a little longer."

(5) Whenever a child says that his or her parent, grandparent, guardian, etc., said never to touch lighters, say "that's right—never touch a real lighter—but your [parent, etc.] said it was OK for you to try to make a noise with this special lighter because it can't hurt you."

(6) The children in a pair being tested may encourage each other to operate the surrogate multi-purpose lighter and may tell or show each other how to operate it. (This interaction is not considered to be disruption as described in paragraph (e)(2) of this section.) However, neither child shall be allowed to touch or operate the other child's multi-purpose lighter. If one child takes the other child's surrogate multi-purpose lighter, that surrogate lighter shall be immediately returned to the proper child. If this occurs, the tester shall say "No. He/she has to try to do it himself(herself)."

(e) *Children who refuse to participate.*

(1) If a child becomes upset or afraid, and cannot be reassured before the test starts, select another eligible child for participation in that pair.

(2) If a child disrupts the participation of another child for more than 1 minute during the test, the test shall be stopped and both children eliminated from the

results. An explanation shall be recorded on the data collection record. These two children should be replaced with other eligible children to complete the test panel.

(3) If a child is not disruptive but refuses to attempt to operate the surrogate multi-purpose lighter throughout the entire test period, that child shall be eliminated from the test results and an explanation shall be recorded on the data collection record. The child shall be replaced with another eligible child (as one of a pair of children) to complete the test panel.

(f) *Test procedure.* (1) To begin the test, the tester shall say "I have a special multi-purpose lighter that will not make a flame. It makes a noise like this." Except where doing so would block the child's view of a visual signal, the adult tester shall place a  $8\frac{1}{2}$  by 11 inch sheet of cardboard or other rigid opaque material upright on the table in front of the surrogate multi purpose lighter, so that the surrogate multi-purpose lighter cannot be seen by the child, and shall operate the surrogate multi-purpose lighter once to produce its signal. The tester shall say "Your parents said it is OK for you to try to make that noise with your lighter." The tester shall place a surrogate multi-purpose lighter in each child's hand and say "now you try to make a noise with your lighter. Keep trying until I tell you to stop."

**Note:** For multi-purpose lighters with an "off/on" switch, the surrogate lighter shall be given to the child with the switch in the "off," or locked, position.

(2) The adult tester shall observe the children for 5 minutes to determine if either or both of the children can successfully operate the surrogate multi-purpose lighter by producing one signal of any duration. If a child achieves a spark without defeating the child-resistant feature, say "that's a spark—it won't hurt you—try to make a noise with your lighter." If any child successfully operates the surrogate multi-purpose lighter during this first 5-minute period, the lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. The tester shall ask the successful child to remain until the other child is finished.

(3) If either or both of the children are unable to successfully operate the surrogate multi-purpose lighter during the 5-minute period specified in § 1212.4(f)(3), the adult tester shall demonstrate the operation of the surrogate multi-purpose lighter. To conduct the demonstration, secure the children's full attention by saying "Okay, give me your lighter(s) now."

Take the surrogate multi-purpose lighters and place them on the table in front of you out of the children's reach. Then say, "I'll show you how to make the noise with your lighters. First I'll show you with (child's name) lighter and then I'll show you with (child's name) lighter." Pick up the first child's surrogate multi-purpose lighter. Hold the lighter approximately 2 feet in front of the children at their eye level. Hold the surrogate multi-purpose lighter in a vertical position in one hand with the child-resistant feature exposed (not covered by fingers, thumb, etc.). Orient the child-resistant mechanism on the multi-purpose lighter toward the children. (This may require a change in your orientation to the children such as sitting sideways in the chair to allow a normal hand position for holding the multi-purpose lighter while assuring that both children have a clear view of the mechanism. You may also need to reposition your chair so your hand is centered between the children.) Say "now watch the lighter." Look at each child to verify that they are looking at the lighter. Operate the multi-purpose lighter one time in a normal manner according to the manufacturer's instructions. Do not exaggerate operating movements. Do not verbally describe the lighter's operation. Place the first child's lighter back on the table in front of you and pick up the second child's lighter. Say, "Okay, now watch this lighter." Repeat the demonstration as described above using the second child's multi-purpose lighter. Notes: The demonstration is conducted with each child's lighter, even if one child has successfully operated the lighter. Testers shall be trained to conduct the demonstration in a uniform manner, including the words spoken to the children, the way the multi-purpose lighter is held and operated, and how the tester's hand and body is oriented to the children. All testers must be able to operate the surrogate multi-purpose lighters using only appropriate operating movements in accordance with the manufacturer's instructions. If any of these requirements are not met during the demonstration for any pair of children, the results for that pair of children shall be eliminated from the test. Another pair of eligible children shall be used to complete the test panel.

(4) Each child who fails to successfully operate the surrogate multi-purpose lighter in the first 5 minutes is then given another 5 minutes in which to attempt to complete the successful operation of the surrogate multi-purpose lighter. After the demonstrations, give the same surrogate multi-purpose lighter

back to each child who did not successfully operate the surrogate multi-purpose lighter in the first 5 minutes by placing the multi-purpose lighter in the child's hand. Say "Okay, now you try to make the noise with your lighter(s)—keep trying until I tell you to stop." If any child successfully operates the surrogate multi-purpose lighter during this period, the surrogate multi-purpose lighter shall be taken from that child and the child shall not be asked to try to operate the lighter again. If the other child has not yet successfully operated the surrogate multi-purpose lighter, the tester shall ask the successful child to remain until the other child is finished.

**Note:** Multi-purpose lighters having an on/off switch shall have the switch returned to the position the child left it at the first 5-minute test period before returning the lighter to the child.

(5) At the end of the second 5-minute test period, take the surrogate multi-purpose lighter from any child who has not successfully operated it.

(6) After the test is over, ask the children to stand next to you. Look at the children's faces and say: "These are special lighters that don't make fire. Real lighters can burn you. Will you both promise me that if you find a real lighter you won't touch it and that you'll tell a grownup right away?" Wait for an affirmative response from each child; then thank the children for helping.

(7) Escort the children out of the room used for testing.

(8) After a child has participated in the testing of a surrogate multi-purpose lighter, and on the same day, provide written notice of that fact to the child's parent or guardian. This notification may be in the form of a letter provided to the school to be given to a parent or guardian of each child. The notification shall state that the child participated, shall ask the parent or guardian to warn the child not to play with matches or lighters, and shall remind the parent or guardian to keep all lighters and matches, whether child-resistant or not, out of the reach of children. For children who operated the surrogate multi-purpose lighter, the notification shall state that the child was able to operate the child-resistant multi-purpose lighter. For children who do not defeat the child-resistant feature, the notification shall state that, although the child did not defeat the child-resistant feature, the child may be able to do so in the future.

(g) *Data collection and recording.* Except for recording the times required for the children to activate the signal, recording of data should be avoided

while the children are trying to operate the multi-purpose lighters, so that the tester's full attention is on the children during the test period. If actual testing is videotaped, the camera shall be stationary and shall be operated remotely in order to avoid distracting the children. Any photographs shall be taken after actual testing and shall simulate actual test procedure(s) (for example, the demonstration). The following data shall be collected and recorded for each child in the 100-child test panel:

- (1) Sex (male or female).
- (2) Date of birth (month, day, year).
- (3) Age (in months, to the nearest month).
- (4) The number of the multi-purpose lighter tested by that child.
- (5) Date of participation in the test (month, day, year).
- (6) Location where the test was given (city, state, and the name of the site).
- (7) The name of the tester who conducted the test.
- (8) The elapsed time at which the child achieved any operation of the surrogate signal in the first 5-minute test period.
- (9) The elapsed time at which the child achieved any operation of the surrogate signal in the second 5-minute test period.
- (10) For a single pair of children from each 100-child test panel, photograph(s) or video tape to show how the multi-purpose lighter was held in the tester's hand, and the orientation of the tester's body and hand to the children, during the demonstration.

(h) *Evaluation of test results and acceptance criterion.* To determine whether a surrogate multi-purpose lighter resists operation by at least 85 percent of the children, sequential panels of 100 children each, up to a maximum of 2 panels, shall be tested as prescribed below.

(1) If no more than 10 children in the first 100-child test panel successfully operated the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate multi-purpose lighter shall be considered to be resistant to successful operation by at least 85 percent of the child test panel, and no further testing is conducted. If 11 through 18 children in the first 100-child test panel successfully operate the surrogate multi-purpose lighter, the test results are inconclusive, and the surrogate multi-purpose lighter shall be tested with a second 100-child test panel in accordance with this § 1212.4. If 19 or more of the children in the first 100-child test panel successfully operated the surrogate multi-purpose lighter, the lighter represented by the



surrogate shall be considered not resistant to successful operation by at least 85 percent of the child test panel, and no further testing is conducted.

(2) If additional testing of the surrogate multi-purpose lighter is required by paragraph (h)(1) of this section, conduct the test specified by this § 1212.4 using a second 100-child test panel and record the results. If a total of no more than 30 of the children in the combined first and second 100-child test panels successfully operated the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate multi-purpose lighter shall be considered resistant to successful operation by at least 85 percent of the child test panel, and no further testing is performed. If a total of 31 or more children in the combined first and second 100-child test panels successfully operate the surrogate multi-purpose lighter, the multi-purpose lighter represented by the surrogate shall be considered not resistant to successful operation by 85 percent of the child test panel, and no further testing is conducted. Thus, for the first panel of 100 children, the surrogate passes if there are 0–10 successful operations by the children; the surrogate fails if there are 19 or greater successful operations; and testing is continued if there are 11–18 successes. If testing is continued with a second panel of children, the surrogate passes if the combined total of the successful operations of the two panels is 30 or less, and it fails if there are 31 or more.

#### § 1212.5 Findings.

Section 9(f) of the Consumer Product Safety Act (15 U.S.C. 2058(f)) requires the Commission to make findings concerning the following topics and to include the findings in the rule.

(a) *The degree and nature of the risk of injury the rule is designed to eliminate or reduce.* The standard is designed to reduce the risk of death and injury from accidental fires started by children playing with multi-purpose lighters. The CPSC's staff has identified 178 fires that occurred between January 1988 and August 6, 1998, that were started by children under age 5 playing with multi-purpose lighters. These fires resulted in a total of 29 deaths and 71 injuries. Fire-related injuries include thermal burns—many of high severity—as well as anoxia and other, less serious injuries. The annual cost of these fires, which averaged about \$34.4 million per year during 1996–1997, are now estimated to exceed \$35 million annually. This is based on increases in the sales and use of multi-purpose lighters in recent years. Because these

data are from known fires rather than national estimates, the extent of the total problem may be greater. Fires started by children under age 5 are those which the standard would most effectively reduce.

(b) *The approximate number of consumer products, or types or classes thereof, subject to the rule.* The standard covers certain flame-producing devices, commonly known as multi-purpose lighters, that are defined in § 1212.2(a) of this part 1212. This definition includes products that are referred to as micro-torches. Multi-purpose lighters may use any fuel and may be refillable or nonrefillable. Over 20 million multi-purpose lighters are expected to be sold to consumers in the U.S. during 1998. Multi-purpose lighters manufactured after [insert date that is 1 year after publication of a final rule] will be required to meet child-resistance requirements.

(c) *The need of the public for the consumer products subject to the rule, and the probable effect of the rule on the utility, cost, or availability of such products to meet such need.* Consumers use multi-purpose lighters primarily to ignite items such as candles, fuel for fireplaces, charcoal or gas-fired grills, camp fires, camp stoves, lanterns, or fuel-fired appliances or devices or their pilot lights. The following products are not multi-purpose lighters: devices, intended primarily for igniting smoking materials, that are within the definition of "lighter" in the Safety Standard for Cigarette Lighters (16 CFR 1210.2(c)); devices that contain more than 10 oz. of fuel; and matches. The standard's requirements should ensure that most children under 52 months of age cannot operate the lighters.

(1) There will be several types of costs associated with the rule. Manufacturers would have to devote some resources to the development or modification of technology to produce child-resistant multi-purpose lighters. Before being marketed, the lighters must be tested and certified to the new standard. It is also possible that manufacturing child-resistant lighters may require more labor or material than non-child-resistant lighters.

(2) Manufacturers will have to modify their existing multi-purpose lighters to comply with the rule. In general, costs that manufacturers would incur in developing, producing, and selling new complying lighters include the following:

(i) Research and development toward finding the most promising approaches to improving child resistance, including building prototypes and surrogate

lighters for preliminary child panel testing;

(ii) Retooling and other production equipment changes required to produce more child-resistant multi-purpose lighters, beyond normal periodic changes made to the plant and equipment;

(iii) Labor and material costs of the additional assembly steps, or modification of assembly steps, in the manufacturing process;

(iv) The additional labeling, recordkeeping, certification, testing, and reporting that will be required for each new model;

(v) Various administrative costs of compliance, such as legal support and executive time spent at related meetings and activities; and

(vi) Lost revenue if sales are adversely affected.

(3) Industry sources have not been able to provide firm estimates of these costs. One major manufacturer has introduced a child-resistant multi-purpose lighter. However, because that company did not previously manufacture a non-child-resistant lighter, it was unable to estimate the incremental cost of developing and manufacturing child-resistant multi-purpose lighters.

(4) Assuming that there are 15 manufacturers and that each invests an average of \$2 million to develop and market complying lighters, the total industry cost for research development, retooling, and compliance testing would be approximately \$30 million. If amortized over a period of 10 years, and assuming a modest 3 percent sales growth each year, the average of these costs would be about \$0.13 per unit.<sup>1</sup> For a manufacturer with a large market share (i.e., selling several million units or more a year) the cost per unit of the development costs could be lower than the estimated \$0.13 per unit, even at the high end of the estimates. On the other hand, for manufacturers with a small market share, the per-unit development costs would be greater. Some manufacturers with small market shares may even drop out of the market (at least temporarily) or delay entering the market.

(5) In addition to the research, development, retooling, and testing costs, material and labor costs are likely to increase. For example, additional

<sup>1</sup> If 20 million lighters are sold in the first year (approximately the current annual sales volume) and sales increase at the rate of 3 percent a year (industry sources indicate that they have been growing at 5 to 10 percent annually), then over a 10-year period approximately 230 million lighters would be sold. \$30 million/230 million = \$0.13/unit.

labor will be required to add the child-resistant mechanism to the lighter during assembly. Additional materials may also be needed to produce the child-resistant mechanism. While CPSC was unable to obtain reliable estimates, some industry sources indicated that they believed that these costs would be relatively low, probably less than \$0.25 per unit.

(6) Multi-purpose lighters will also be required to have a label that identifies the manufacturer and the approximate date of manufacture. However, virtually all products are already labeled in some way. Since the requirement in the rule allows substantial flexibility to the manufacturer in terms of things such as color, size, and location, this requirement is not expected to increase the costs significantly.

(7) Certification and testing costs include costs of producing surrogate lighters; conducting child panel tests; and issuing and maintaining records for each model. The largest component of these costs is believed to be building surrogates and conducting child panel tests, which, based on CPSC experience, may cost about \$25,000 per lighter model. Administrative expenses associated with the compliance and related activities are difficult to quantify, since many such activities associated with the rule would probably be carried out anyway and the marginal impact of the recommended rule is probably slight. Overall, certification, testing, and administrative costs are expected to add about \$0.02 per unit to the cost of producing multi-purpose lighters. Because of lower sales volume, the per-unit cost for micro-torches is expected to be higher.

(8) Multi-purpose lighters are sold in countries other than the United States. Some manufacturers may develop lighters that meet the requirements of the rule for distribution in the United States, but continue to distribute the current, non-child-resistant models in other countries. Thus, some manufacturers may incur the incremental costs associated with producing multiple lines of similar products. These costs could include extra administrative costs required to maintain different lines and the incremental costs of producing different lines of similar products, such as using different molds or different assembly steps. These costs would, however, be mitigated if similar or identical standards were adopted by other countries.

(9) In total, the rule will likely increase the cost of manufacturing multi-purpose lighters by about \$0.40 per unit. The proposed rule will likely

increase the per-unit cost of manufacturing micro-torches and other high-end multi-purpose lighters by a greater amount. However the available information is insufficient to make a reliable estimate of this cost.

(10) At the present time, one manufacturer has about 90 percent of the market for multi-purpose lighters. The other manufacturers, importers, and private labelers divide up the remaining 10 percent of the market. Thus, there is already a very high degree of concentration in the market. Even so, at least two manufacturers have already entered the market with models that are believed to meet the requirements of the rule and at least one other firm is believed to be actively developing a child-resistant lighter. Therefore, the rule is not expected to have any significant impact on competition. Moreover, other firms are expected to enter the market for multi-purpose lighters, and thereby increase competition, as the market expands. Firms that market child-resistant multi-purpose lighters before the standard's effective date may gain an initial competitive advantage. However, any differential impact is likely to be slight and short-lived. Other manufacturers can be expected to have child-resistant multi-purpose lighters developed and ready to market before or soon after the rule goes into effect.

(11) Impact on consumers. Aside from increased safety, the rule is likely to affect consumers in two ways. First, the increased cost for producing the child-resistant models will likely result in higher retail prices for multi-purpose lighters. Second, the utility derived from child-resistant lighters may be decreased if complying lighters are less easy to operate.

(12) Assuming a 100 percent markup over the incremental cost to manufacturers (estimated at \$0.40/unit), the rule may be expected to increase the retail price of multi-purpose lighters by \$0.80 per unit. The per-unit price increase for micro-torches and other high-end multi-purpose lighters may be higher due to the smaller numbers of such lighters produced.

(13) The utility that consumers receive from multi-purpose lighters may be reduced if the rule makes the lighters more difficult to operate. This could result in some consumers switching to substitute products, such as matches. However, as with child-resistant cigarette lighters, the increased difficulty of operating child-resistant multi-purpose lighters is expected to be slight. Moreover, even if some consumers do switch to other products, the risk of fire is not expected to

increase significantly. Most cigarette lighters (one possible substitute) must already meet the same child-resistant standard as those applicable to multi-purpose lighters. Although consumers that switch to matches may increase the risk of child-play fires somewhat, matches seem to be inherently more child resistant than are non-child-resistant multi-purpose lighters. Previously, the CPSC determined that non-child-resistant cigarette lighters were 1.4 times as likely as matches to be involved in child-play fires and 3.9 times as likely to be involved in a child-play death. Thus, even if some consumers did switch to using matches, the risk of child-play fires would still likely be less than if they continued to use non-child-resistant multi-purpose lighters.

(14) As previously stated, the total societal costs of fires known to have been started during 1995 through 1997 by children under age 5 playing with multi-purpose lighters was approximately \$103 million, or \$34.4 million per year. This is probably an underestimate, since it only includes the cases of which CPSC is aware. During the same period, an estimated 19.4 million multi-purpose lighters were available for use each year. The societal costs of the fires started by young children attempting to operate multi-purpose lighters is, therefore, about \$1.77 per lighter ( $\$34.4 \text{ million} \div 19.4 \text{ million lighters}$ ). The rule is expected to reduce this cost by 75 to 84 percent. Therefore, the expected societal benefit of the rule in terms of reduced fires, deaths, injuries, and property damage is expected to be \$1.33 to \$1.49 per complying lighter sold.

(15) As discussed above, the rule may increase the cost of manufacturing multi-purpose lighters by \$0.40 and may increase the retail prices by as much as \$0.80. Therefore, assuming that sales of multi-purpose lighters remain the same, the net benefit (benefits minus costs) of the rule to consumers is expected to be at least \$0.53 per unit ( $\$1.33 - \$0.80$ ). Based on 1998 sales of approximately 20 million units per year, the rule would result in an annual net benefit to consumers as high as \$10.6 million ( $20 \text{ million} \times \$0.53$ ) annually. If sales of multi-purpose lighters continue to increase at current rates (5 to 10 percent annually), the annual net benefit will also increase by a similar percentage.

(16) Some multi-purpose lighters, especially the micro-torch type, have useful lives of greater than one year. Therefore, the gross benefit of the proposed rule per lighter of this type is computed by summing the expected annual net benefit (estimated above as

\$1.33 per unit) over the expected life of the lighter. For example, if a multi-purpose lighter, such as a micro-torch, had an expected useful life of 10 years the gross benefit would be \$11.14 per lighter, assuming a discount rate of 4 percent. As stated earlier, the costs/unit for manufacturing these micro-torch type multi-purpose lighters is likely to be higher. Assuming a markup at retail of 100 percent over manufacturing costs and a 10-year product life, if the cost per unit to manufacture child-resistant micro-torches is less than \$5.57/unit, net social benefits would result. However, if the expected useful life of a micro-torch was only 5 years, the gross benefit would be \$6.14/unit. This would suggest positive net benefits if the per unit manufacturing costs are less than \$3.12 per unit.

(17) The actual level of benefits observed could be higher if some multi-purpose lighters are stored with the on/off switch in the "on" position. If a significant number of consumers commonly store multi-purpose lighters with the switch on, the effective level of child resistance of multi-purpose lighters currently in use may be lower than indicated by CPSC's baseline testing. This would increase the effectiveness of the rule and the value of the net benefits.

(d) *Any means of achieving the objective of the order while minimizing adverse effects on competition or disruption or dislocation of manufacturing and other commercial practices consistent with the public health and safety.* The performance requirements of this part 1212 are based on the Commission's Safety Standard for Cigarette Lighters, 16 CFR part 1210. In developing that standard, the Commission considered the potential effects on competition and business practices of various aspects of the standard, and incorporated some burden-reducing elements into the standard. One possible alternative to this mandatory standard would be for the Commission to rely on voluntary conformance to the requirements of the standard to provide safety to consumers. The expected level of conformance to a voluntary standard is uncertain, however. Although some of the largest firms may market some child-resistant multi-purpose lighters that conform to these requirements, most firms (possibly including some of the largest) probably would not. Even under generous assumptions about the level of voluntary conformance, net benefits to consumers would be substantially lower under this alternative than under the standard. Thus, the Commission finds that reliance on voluntary conformance

to the provisions of this part 1212 would not adequately reduce the unreasonable risk associated with multi-purpose lighters.

(e) *The rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable risk.* The Commission's hazard data and regulatory analysis demonstrate that multi-purpose lighters covered by the standard pose an unreasonable risk of death and injury to consumers. The Commission considered a number of alternatives to address this risk, and believes that the standard strikes the most reasonable balance between risk reduction benefits and potential costs. Further, the amount of time before the standard becomes effective (one year after publication of the final rule) will provide manufacturers and importers of most products adequate time to design, produce, and market safer multi-purpose lighters. Thus, the Commission finds that the standard and its effective date are reasonably necessary to reduce the risk of fire-related death and injury associated with young children playing with multi-purpose lighters.

(f) *The benefits expected from the rule bear a reasonable relationship to its costs.* The standard will substantially reduce the number of fire-related deaths, injuries, and property damage associated with young children playing with multi-purpose lighters. The cost of these accidents, which is estimated to be greater than \$35 million annually, will also be greatly reduced. The rule is expected to reduce this societal cost by 75–84 percent, or by greater than \$26 million. The estimated annual costs to the public are expected to be less than this amount. Therefore, substantial net benefits will accrue to consumers. Thus, the Commission finds that a reasonable relationship exists between potential benefits and potential costs of the standard.

(g) *The rule imposes the least burdensome requirement which prevents or adequately reduces the risk of injury for which the rule is being promulgated.* The Commission incorporated a number of features from the cigarette lighter standard, 16 CFR part 1210, in order to minimize the potential burden of the rule on industry and consumers. The Commission also considered alternatives involving different performance and test requirements and different definitions determining the scope of coverage among products. The other alternatives considered generally would be more burdensome to industry and would have higher costs to consumers. Some less burdensome alternatives would have lowered the risk-reduction benefits to

consumers; none has been identified that would result in a higher level of safety. A less stringent acceptance criterion of 80 percent (rather than the standard's 85 percent) might slightly reduce costs to industry and consumers. The safety benefits of this alternative, however, would likely be reduced disproportionately to the potential reduction in costs. A higher (90 percent) acceptance criterion was also considered. This higher performance level may not be commercially or technically feasible for many firms, however. The Commission believes that this more stringent alternative would have substantial adverse effects on manufacturing and competition, and would increase costs disproportionate to benefits. The Commission believes that the requirement that complying multi-purpose lighters not be operable by at least 85 percent of children in prescribed tests strikes a reasonable balance between improved safety for a substantial majority of young children and other potential fire victims and the potential for adverse competitive effects and manufacturing disruption. The standard will become effective 12 months from its date of publication in the **Federal Register**. The Commission also considered an effective date of 6 months after the date of issuance of the final rule. While most multi-purpose lighters sold in the U.S. could probably be made child-resistant within 6 months, the supply of some imported multi-purpose lighters would be disrupted. The 12-month period in the standard would minimize this potential effect, and would allow more time for firms to design, produce, and import complying multi-purpose lighters. The Commission estimates that there would be no significant adverse impact on the overall supply of multi-purpose lighters for the U.S. market.

(h) *The promulgation of the rule is in the public interest.* As required by the CPSA and the Regulatory Flexibility Act, the Commission considered the potential benefits and costs of the standard and various alternatives. While certain alternatives to the final rule are estimated to have net benefits to consumers, they would decrease the level of safety. Thus, the Commission finds that the standard is in the public interest.

#### Subpart B—Certification Requirements

**Authority:** 15 U.S.C. 2063, 2065(b), 2066(g), 2076(e), 2079(d).

##### § 1212.11 General.

Section 14(a) of the Consumer Product Safety Act (CPSA), 15 U.S.C.

2063(a), requires every manufacturer, private labeler, or importer of a product that is subject to a consumer product safety standard and that is distributed in commerce to issue a certificate that such product conforms to the applicable standard and to base that certificate upon a test of each item or upon a reasonable testing program. The purpose of this subpart B of part 1212 is to establish requirements that manufacturers, importers, and private labelers must follow to certify that their products comply with the Safety Standard for Multi-purpose lighters. This Subpart B describes the minimum features of a reasonable testing program and includes requirements for labeling, recordkeeping, and reporting pursuant to sections 14, 16(b), 17(g), and 27(e) of the CPSA, 15 U.S.C. 2063, 2065(b), 2066(g), and 2076(e).

#### § 1212.12 Certificate of compliance.

(a) *General requirements.*—(1) *Manufacturers (including importers).* Manufacturers of any multi-purpose lighter subject to the standard must issue the certificate of compliance required by section 14(a) of the CPSA, 15 U.S.C. 2063(a), and this subpart B, based on a reasonable testing program or a test of each product, as required by §§ 1212.13, 1212.14, and 1212.16. Manufacturers must also label each multi-purpose lighter subject to the standard as required by paragraph (c) of this section and keep the records and make the reports required by §§ 1212.15 and 1212.17. For purposes of this requirement, an importer of multi-purpose lighters shall be considered the "manufacturer."

(2) *Private labelers.* Because private labelers necessarily obtain their products from a manufacturer or importer that is already required to issue the certificate, private labelers are not required to issue a certificate. However, private labelers must ensure that the multi-purpose lighters are labeled in accordance with paragraph (c) of this section and that any certificate of compliance that is supplied with each shipping unit of multi-purpose lighters in accordance with paragraph (b) of this section is supplied to any distributor or retailer who receives the product from the private labeler.

(3) *Testing on behalf of importers.* If the required testing has been performed by or for a foreign manufacturer of a product, an importer may rely on such tests to support the certificate of compliance, provided that the importer is a resident of the United States or has a resident agent in the United States and the records are in English and the

records and the surrogate multi-purpose lighters tested are kept in the United States and can be provided to the Commission within 48 hours (§ 1212.17(a)) or, in the case of production records, can be provided to the Commission within 7 calendar days in accordance with § 1212.17(a)(3). The importer is responsible for ensuring that

(i) The foreign manufacturer's records show that all testing used to support the certificate of compliance has been performed properly (§§ 1212.14–1212.16),

(ii) The records provide a reasonable assurance that all multi-purpose lighters imported comply with the standard (§ 1212.13(b)(1)),

(iii) The records exist in English (§ 1212.17(a)),

(iv) The importer knows where the required records and multi-purpose lighters are located and that records required to be located in the United States are located there,

(v) Arrangements have been made so that any records required to be kept in the United States will be provided to the Commission within 48 hours of a request and any records not kept in the United States will be provided to the Commission within 7 calendar days (§ 1212.17(a)), and

(vi) The information required by § 1212.17(b) to be provided to the Commission's Office of Compliance has been provided.

(b) *Certificate of compliance.* A certificate of compliance must accompany each shipping unit of the product (for example, a case), or otherwise be furnished to any distributor or retailer to whom the product is sold or delivered by the manufacturer, private labeler, or importer. The certificate shall state:

(1) That the product "complies with the Consumer Product Safety Standard for Multi-purpose lighters (16 CFR part 1212)";

(2) The name and address of the manufacturer or importer issuing the certificate or of the private labeler, and

(3) The date(s) of manufacture and, if different from the address in paragraph (b)(2) of this section, the address of the place of manufacture.

(c) *Labeling.* The manufacturer or importer must label each multi-purpose lighter with the following information, which may be in code.

(1) An identification of the period of time, not to exceed 31 days, during which the multi-purpose lighter was manufactured.

(2) An identification of the manufacturer of the multi-purpose lighter, unless the multi-purpose lighter bears a private label. If the multi-

purpose lighter bears a private label, it shall bear a code mark or other label that will permit the seller of the multi-purpose lighter to identify the manufacturer to the purchaser upon request.

#### § 1212.13 Certification tests.

(a) *General.* As explained in § 1212.11 certificates of compliance required by section 14(a) of the CPSA, 15 U.S.C. 2063(a), must be based on a reasonable testing program.

(b) *Reasonable testing programs.*—(1) *Requirements.* (i) A reasonable testing program for multi-purpose lighters is one that demonstrates with a high degree of assurance that all multi-purpose lighters manufactured for sale or distributed in commerce will meet the requirements of the standard, including the requirements of § 1212.3. Manufacturers and importers shall determine the types and frequency of testing for their own reasonable testing programs. A reasonable testing program should be sufficiently stringent that it will detect any variations in production or performance during the production interval that would cause any multi-purpose lighters to fail to meet the requirements of the standard.

(ii) All reasonable testing programs shall include:

(A) Qualification tests, which must be performed on surrogates of each model of multi-purpose lighter produced, or to be produced, to demonstrate that the product is capable of passing the tests prescribed by the standard (see § 1212.14) and

(B) Production tests, which must be performed during appropriate production intervals as long as the product is being manufactured (see § 1212.16).

(iii) Corrective action and/or additional testing must be performed whenever certification tests of samples of the product give results that do not provide a high degree of assurance that all multi-purpose lighters manufactured during the applicable production interval will pass the tests of the standard.

(2) *Testing by third parties.* At the option of the manufacturer or importer, some or all of the testing of each multi-purpose lighter or multi-purpose lighter surrogate may be performed by a commercial testing laboratory or other third party. However, the manufacturer or importer must ensure that all certification testing has been properly performed with passing results and that all records of such tests are maintained in accordance with § 1212.17.

**§ 1212.14 Qualification testing.**

(a) *Testing.* Before any manufacturer or importer of multi-purpose lighters distributes multi-purpose lighters in commerce in the United States, surrogate multi-purpose lighters of each model shall be tested in accordance with § 1212.4, to ensure that all such multi-purpose lighters comply with the standard. However, if a manufacturer has tested one model of multi-purpose lighter, and then wishes to distribute another model of multi-purpose lighter that differs from the first model only by differences that would not have an adverse effect on child resistance, the second model need not be tested in accordance with § 1212.4.

(b) *Product modifications.* If any changes are made to a product after initial qualification testing that could adversely affect the ability of the product to meet the requirements of the standard, additional qualification tests must be made on surrogates for the changed product before the changed multi-purpose lighters are distributed in commerce.

(c) *Requalification.* If a manufacturer or importer chooses to requalify a multi-purpose lighter design after it has been in production, this may be done by following the testing procedures at § 1212.4.

**§ 1212.15 Specifications.**

(a) *Requirement.* Before any multi-purpose lighters that are subject to the standard are distributed in commerce, the manufacturer or importer shall ensure that the surrogate multi-purpose lighters used for qualification testing under § 1212.14 are described in a written product specification. (Section 1212.4(c) requires that six surrogate multi-purpose lighters be used for testing each 100-child panel.)

(b) *Contents of specification.* The product specification shall include the following information:

(1) A complete description of the multi-purpose lighter, including size, shape, weight, fuel, fuel capacity, ignition mechanism, and child-resistant features.

(2) A detailed description of all dimensions, force requirements, or other features that could affect the child-resistance of the multi-purpose lighter, including the manufacturer's tolerances for each such dimension or force requirement.

(3) Any further information, including, but not limited to, model names or numbers, necessary to adequately describe the multi-purpose lighters and any child-resistant features.

**§ 1212.16 Production testing.**

(a) *General.* Manufacturers and importers shall test samples of multi-purpose lighters subject to the standard as they are manufactured, to demonstrate that the multi-purpose lighters meet the specifications, required under § 1212.15, of the surrogate that has been shown by qualification testing to meet the requirements of the standard.

(b) *Types and frequency of testing.* Manufacturers, private labelers, and importers shall determine the types of tests for production testing. Each production test shall be conducted at a production interval short enough to provide a high degree of assurance that, if the samples selected for testing pass the production tests, all other multi-purpose lighters produced during the interval will meet the standard.

(c) *Test failure.*—(1) *Sale of multi-purpose lighters.* If any test yields results which indicate that any multi-purpose lighters manufactured during the production interval may not meet the standard, production and distribution in commerce of multi-purpose lighters that may not comply with the standard must cease until it is determined that the lighters meet the standard or until corrective action is taken. (It may be necessary to modify the multi-purpose lighters or perform additional tests to ensure that only complying multi-purpose lighters are distributed in commerce. Multi-purpose lighters from other production intervals having test results showing that multi-purpose lighters from that interval comply with the standard could be produced and distributed unless there was some reason to believe that they might not comply with the standard.)

(2) *Corrective actions.* When any production test fails to provide a high degree of assurance that all multi-purpose lighters comply with the standard, corrective action must be taken. Corrective action may include changes in the manufacturing process, the assembly process, the equipment used to manufacture the product, or the product's materials or design. The corrective action must provide a high degree of assurance that all multi-purpose lighters produced after the corrective action will comply with the standard. If the corrective action changes the product from the surrogate used for qualification testing in a manner that could adversely affect its child-resistance, the multi-purpose lighter must undergo new qualification tests in accordance with § 1212.14.

**§ 1212.17 Recordkeeping and reporting.**

(a) Every manufacturer and importer of lighters subject to the standard shall maintain the following records in English on paper, microfiche, or similar media and make such records available to any designated officer or employee of the Commission in accordance with section 16(b) of the Consumer Product Safety Act, 15 U.S.C. 2065(b). Such records must also be kept in the United States and provided to the Commission within 48 hours of receipt of a request from any employee of the Commission, except as provided in paragraph (a)(3) of this section. Legible copies of original records may be used to comply with these requirements.

(1) Records of qualification testing, including a description of the tests, photograph(s) or a video tape for a single pair of children from each 100-child test panel to show how the lighter was held in the tester's hand, and the orientation of the tester's body and hand to the children, during the demonstration, the dates of the tests, the data required by § 1212.4(d), the actual surrogate lighters tested, and the results of the tests, including video tape records, if any. These records shall be kept for a period of 3 years after the production of the particular model to which such tests relate has ceased. If requalification tests are undertaken in accordance with § 1212.14(c) above, the original qualification test results may be discarded 3 years after the requalification testing, and the requalification test results and surrogates, and the other information required in this subsection for qualifications tests, shall be kept in lieu thereof.

(2) Records of procedures used for production testing required by this subpart B, including a description of the types of tests conducted (in sufficient detail that they may be replicated), the production interval selected, the sampling scheme, and the pass/reject criterion. These records shall be kept for a period of 3 years after production of the lighter has ceased.

(3) Records of production testing, including the test results, the date and location of testing, and records of corrective actions taken, which in turn includes the specific actions taken to improve the design or manufacture or to correct any noncomplying lighter, the date the actions were taken, the test result or failure that triggered the actions, and the additional actions taken to ensure that the corrective action had the intended effect. These records shall be kept for a period of 3 years following the date of testing. Records of production testing results may be kept

on paper, microfiche, computer tape, or other retrievable media. Where records are kept on computer tape or other retrievable media, however, the records shall be made available to the Commission on paper copies upon request. A manufacturer or importer of a lighter that is not manufactured in the United States may maintain the production records required by this paragraph (a)(3) outside the United States, but shall make such records available to the Commission in the United States within 1 week of a request from a Commission employee for access to those records under section 16(b) of the CPSA, 15 U.S.C. 2065(b).

(4) Records of specifications required under § 1212.15 shall be kept for 3 years after production of each lighter model has ceased.

(b) *Reporting.* At least 30 days before it first imports or distributes in commerce any model of lighter subject to the standard, every manufacturer and importer must provide a written report to the Office of Compliance, Consumer Product Safety Commission, 4330 East-West Highway, Room 610, Bethesda, Maryland 20814-4408. Such report shall include:

(1) The name, address, and principal place of business of the manufacturer or importer,

(2) A detailed description of the lighter model and the child-resistant feature(s) used in that model,

(3) A description of the qualification testing, including a description of the surrogate lighters tested (including a description of the point in the operation at which the surrogate will signal operation—e.g., the distance by which a trigger must be moved), the specification of the surrogate lighter required by § 1212.15, a summary of the results of all such tests, the dates the tests were performed, the location(s) of such tests, and the identity of the organization that conducted the tests,

(4) An identification of the place or places that the lighters were or will be manufactured,

(5) The location(s) where the records required to be maintained by paragraph (a) of this section are kept, and

(6) A prototype or production unit of that lighter model.

(c) *Confidentiality.* Persons who believe that any information required to

be submitted or made available to the Commission is trade secret or otherwise confidential shall request that the information be considered exempt from disclosure by the Commission, in accordance with 16 CFR 1015.18. Requests for confidentiality of records provided to the Commission will be handled in accordance with section 6(a)(2) of the CPSA, 15 U.S.C. 2055(a)(2), the Freedom of Information Act as amended, 5 U.S.C. 552, and the Commission's regulations under that act, 16 CFR part 1015.

#### § 1212.18 Refusal of Importation.

(a) *For noncompliance with reporting and recordkeeping requirements.* The Commission has determined that compliance with the recordkeeping and reporting requirements of this subpart is necessary to ensure that lighters comply with this part 1212. Therefore, pursuant to section 17(g) of the CPSA, 15 U.S.C. 2066(g), the Commission may refuse to permit importation of any lighters with respect to which the manufacturer or importer has not complied with the recordkeeping and reporting requirements of this subpart. Since the records are required to demonstrate that production lighters comply with the specifications for the surrogate, the Commission may refuse importation of lighters if production lighters do not comply with the specifications required by this subpart, or if any other recordkeeping or reporting requirement in this part is violated.

(b) *For noncompliance with this standard or for lack of a certification certificate.* As provided in section 17(a) of the CPSA, 15 U.S.C. 2066(a), products subject to this standard shall be refused admission into the customs territory of the United States if, among other reasons, the product either fails to comply with this standard or is not accompanied by the certificate required by this standard.

#### Subpart C—Stockpiling

**Authority:** 15 U.S.C. 2058(g)(2), 2065(b), 2079(d).

#### § 1212.20 Stockpiling.

(a) *Definition.* *Stockpiling* means to manufacture or import a product that is subject to a consumer product safety

rule between the date of issuance of the rule and its effective date at a rate which is significantly greater than the rate at which such product was produced or imported during a base period.

(b) *Base period.* For purposes of this rule, "base period" means the most recent calendar year prior to [insert date of publication of a final rule in the **Federal Register**].

(c) *Prohibited act.* Manufacturers and importers of multi-purpose lighters shall not manufacture or import such lighters that do not comply with the requirements of this part between the date of publication of the final rule in the **Federal Register** and the date that is 365 days after publication of the final rule in the **Federal Register**, at a rate that is greater than the rate of production or importation during the base period plus 20 per cent of that rate.

(d) *Reporting and recordkeeping requirements.* All firms and persons who make or import multi-purpose lighters, after the date of publication of this rule, that do not meet the requirements of this standard, shall supply the Commission's Office of Compliance with:

(1) Supporting information to establish the number of multi-purpose lighters made or imported during the base period. This information shall be submitted within 30 days of publication of any final rule.

(2) Supporting information to establish the number of lighters made or imported during the year following publication of the final rule. This information shall be submitted within 10 days after the lighters are shipped.

(3) Supporting information shall be sufficient to identify the manufacturer or importer, the party to which the lighters were sold, the destination of the lighters, and shall include copies of relevant invoices and importation documents.

Dated: September 25, 1998.

**Sadye E. Dunn,**

*Secretary, Consumer Product Safety Commission.*

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