CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1212

Safety Standard for Multi-Purpose Lighters

AGENCY: Consumer Product Safety Commission.

ACTION: Final rule.

SUMMARY: The Commission issues performance requirements for the child resistance of multi-purpose lighters. These requirements address unreasonable risks of injury and death associated with multi-purpose lighters that can be operated by children under age 5. Multi-purpose lighters are hand-held flame-producing products that operate on fuel and have an ignition mechanism. They typically are used to light devices such as charcoal and gas grills and fireplaces. Devices intended primarily for igniting smoking materials are excluded; many such products are already subject to a child-resistance standard at 16 CFR Part 1210.

DATES: The rule will become effective December 22, 2000 and apply to multi-purpose lighters manufactured in the United States or imported on or after that date.

ADDRESSES: Copies of documents relevant to this rulemaking can be obtained from the Commission's Office of the Secretary, Consumer Product Safety Commission, Washington DC 20207–0001, Telephone (301) 504–0800, fax (301) 504–504–0127, e-mail cpsc os@cpsc.gov.

FOR FURTHER INFORMATION CONTACT: Michael Bogumill, Office of Compliance, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504–0477, ext. 1368; e-mail mbogumill@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. Background

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

(a)(1) Multi-purpose lighter, (also known as grill lighter, fireplace lighter, utility lighter, micro-torch, or gas match, *etc.*) means: A hand-held, flame-producing product that operates on fuel, incorporates an ignition mechanism, 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. Some multi-purpose lighters have a feature that allows for hands-free operation.

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

(i) Devices intended primarily for igniting cigarettes, cigars, and pipes, whether or not such devices are subject to the requirements of the Safety Standard for Cigarette Lighters (16 CFR 1210).

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

(iii) Matches.

Most multi-purpose lighters have an extended nozzle from which the flame is emitted. The nozzle is typically four to eight inches in length, but can be longer or shorter. Some multi-purpose lighters include a burner that operates at a higher flame temperature than other multi-purpose lighters. These lighters are sometimes referred to as micro-torches. Most micro-torches do not have extended nozzles, but have relatively long, thin, and steady flames that can be directed to their targets. Some 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.

Most multi-purpose lighters use butane fuel. The more expensive multi-purpose lighters are refillable. Many of the less expensive Asian imports are also refillable.

Multi-purpose lighters are operated by applying pressure to a trigger, button, or sliding mechanism. This action releases the fuel and activates a spark at the end of the nozzle that ignites the fuel. Because the fuel must travel from the reservoir, usually located in the handle, to the end of the nozzle, the spark is sometimes activated before the fuel reaches the end of the nozzle. When this happens, the fuel will not be ignited. Users of multi-purpose lighters sometimes have to make more than one ignition attempt before successfully producing a flame. Some higher-priced multi-purpose lighters overcome this problem by using a battery that causes a spark to be continuously generated. This is less of a problem with micro-torch lighters because they do not have a long nozzle.

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.

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.[1] 16 CFR 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 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. After considering the comments received in response to that notice and the other available information, the Commission granted the petition.

On January 16, 1997, the Commission commenced a rulemaking proceeding by publishing an advance notice of proposed rulemaking (ANPR) in the **Federal Register**: 62 FR 2327. The ANPR solicited comments on the risks of injury and death associated with multi-purpose lighters, the regulatory alternatives, and the economic impacts of the regulatory alternatives. The Commission also invited interested persons to submit an existing standard, or a statement of intent to modify or develop a voluntary standard, to address the identified risks.

On January 8, 1998, the Commission published a **Federal Register** notice extending the period for issuing a notice of proposed rulemaking until September 30, 1998. 63 FR 1077. This extension was required so the staff could complete the technical work necessary for a Commission decision on whether to issue a proposed rule.

On September 30, 1998, the Commission published a notice of proposed rulemaking (NPR) that proposed a safety standard to address the risk of death and injury associated with multi-purpose lighters that could be operated by children under age 5. 63 FR 52397. This notice extended the period for issuing a final rule or withdrawing the NPR until June 30, 1999.

Also on September 30, 1998, the Commission published a **Federal Register** notice proposing a rule finding that it is in the public interest to issue a standard, or take other regulatory action on multi-purpose lighters, under the Consumer Product Safety Act (CPSA). Elsewhere in today's issue of

[1] 58 FR 37554. The standard became effective July 12, 1994.

the **Federal Register**, the Commission issues a final rule, under Section 30(d) of the CPSA, making this determination.

On October 29, 1998, the staff sent a copy of the proposed safety standard, with a cover letter outlining the Commission's action, to small importers and manufacturers that could be subject to the standard. The letter invited interested parties to submit comments during the comment period.

On January 20, 1999, the Commission met so interested parties could present oral comments. Mr. Don Cooke, Attorney at Law; Dr. Carol Pollack-Nelson, President, Independent Safety Consulting; and Mr. David Baker, General Counsel of the Lighter Association, Inc. presented oral comments at that meeting.

On August 4, 1999, the Commission published a **Federal Register** notice proposing that the child-panel tests be conducted with the lighter on/off switch in the ''on,'' or unlocked, position, instead of in the ''off,'' or locked, position as originally proposed. 64 FR 42302. This change in the test procedure would protect children in situations where the users of the lighters do not return the switch to the ''off'' position after use. The comment period closed on October 18, 1999. The notice provided an opportunity for oral comments on the proposed change to be presented on September 15, 1999. The Commission received one written comment and no requests for presentation of oral comments. The notice also extended the time for issuing a final rule or withdrawing the NPR until December 31, 1999.

B. Incident Data

Overall, the Commission's staff has identified a total of 340 fires occurring from January 1, 1988, through October 15, 1999, that were reportedly started by children playing with multi-purpose lighters. These fires caused 65 deaths and 138 injuries. For the incidents where the age of the fire starter was known, children under age 5 ignited 237 of these fires, which resulted in 45 deaths and 103 injuries. Twenty-eight of the 45 fatalities were children younger than age 5.

In addition to the fatalities, these fires resulted in severe injuries. Among the fires caused by children younger than age 5, four surviving children received burns over 70% or more of their bodies. These burns will require extensive long-term treatment.

The high proportion of fatalities that were children younger than age 5, and the severity of the injuries, illustrate the hazard associated with children playing with multi-purpose lighters. Because the data are incidents reported to CPSC rather than national estimates, the full extent of the problem may be greater.

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.

C. Description of the Final Standard

1. Scope and Definition

Multi-purpose lighters subject to the standard are also known as grill lighters, fireplace lighters, utility lighters, micro-torches, or gas matches. The rule's definition of multi-purpose lighters is given in Section A of this notice. Both refillable and non-refillable lighters are covered, regardless of their cost.

2. Requirements

Most of the provisions of the standard are essentially the same as the Safety Standard for Cigarette Lighters, including a required child resistance of 85%. The child resistance of a multi-purpose lighter would be determined by tests using panels of children. To avoid harming the children in the test panels, the lighters used for the tests are modified so they will not produce a flame when operated. Rather, the lighters are modified (if necessary) to produce a signal that can be seen or heard when the lighter is operated in a manner that would produce a flame in a production lighter. The child-resistant mechanism would be required to: operate safely when used in a normal and convenient manner, comply with the rule's requirements for the reasonably expected life of the lighter, and not be easily deactivated or prevented from complying with the rule's requirements.

The child-resistant mechanisms in multi-purpose lighters must reset automatically, either (1) after each operation of the lighter or (2) after multiple operations but when or before the user lets go of the lighter. This differs from the Safety Standard for Cigarette Lighters, which requires the child-resistant mechanism to reset after each operation. Some multi-purpose lighters, however, allow the lighter to remain lit after it is released by the user. This can allow hands-free operation during operations such as soldering. To address the child-resistance issue with respect to lighters that have this hands-free feature, the rule contains two requirements that are not in the cigarette lighter standard.

The first additional 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 rule specifies that, after the lighter is lit, an additional manual operation must be performed to activate any feature that allows the lighter to burn without being held by the user.

The second additional 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.

3. Recordkeeping and Reporting Requirements

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

4. Anti-Stockpiling Provisions

The final rule contains anti-stockpiling provisions to prohibit excessive production or importation of noncomplying lighters during the 12-month period between the final rule's publication and its effective date. The provision limits the production or importation of noncomplying products to 120% of the amount produced or imported in the 1-year period before the publication of the rule. To help assure compliance, manufacturers or importers must provide supporting information to CPSC to establish the number of lighters made or imported during the base period. They must also report shipments of non-child-resistant lighters to CPSC within 10 days after the end of each calendar month during the anti-stockpiling period.

5. Effective Date

The final rule will become effective [insert date that is 12 months after publication] (12 months after it is published), and will apply to all multi-purpose lighters manufactured in, or imported into, the United States on or after that date. Based on its experience with the Safety Standard for Cigarette Lighters, the Commission concludes that this will provide firms with sufficient time to design child-resistant multi-purpose lighters and bring them to market. The Commission is aware of one such lighter already on the market,

and additional lighters are in the final stages of development and testing.

D. 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 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 issues 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).

E. Discussion of Comments on the Proposed Standard

The Commission received 23 written comments on the proposed standard. Three individuals presented oral comments to the Commission on January 20, 1999. Copies of all comments and a transcript of the January 20, 1999, public hearing are available from the Office of the Secretary. The major issues raised in the comments and the Commission's responses are discussed in this section.

Overall Description of Comments

The American Academy of Pediatrics wrote in support of the Commission's action to require multi-purpose lighters to be child-resistant, stating that in addition to the quantitative benefits, the rule will reduce the pain and heartache that result from the death and injury caused by children playing with multi-purpose lighters.

The Executive Director of the National Fire Protection Association Center for High-Risk Outreach wrote in support of CPSC's efforts to reduce the number of deaths and injuries associated with children playing with fires. She stated that preschool age children are at more than twice the risk of fire death than the population at large. She also commented on the August 4, 1999, **Federal Register** notice that proposed a change to the test protocol.

Douglas Lant, Chairman of the British Standards Institute Technical Committee on Matches and Lighters, wrote in support of the Commission's action. He stated that the European Standards Organization (CEN) was considering improvements to the Lighter Standard for Europe, including requirements for child-resistance.

The Chairman of the Coalition for Consumer Health & Safety wrote to urge the Commission to publish a final rule on multi-purpose lighters. This organization is a partnership of consumer, health, and insurer groups working to educate the public and to identify and promote policy solutions to a broad range of health and safety threats.

The Lighter Association, Inc. (Lighter Association), and several member firms, BIC Corporation (BIC), The Colibri Group, Scripto-Tokai Corporation (Scripto), Zippo Manufacturing Company (Zippo), and Swedish Match, wrote in general support of child-resistance for multi-purpose lighters but requested that the Commission address certain concerns about the definition and requirements for multi-purpose lighters (discussed below).

Several small firms, Donel, Inc. (Donel), SNC Group, and Zelco Industries, Inc. (Zelco), commented that a standard for multi-purpose lighters would have adverse impacts on small businesses because of the expense of developing and certifying a child-resistant design and because some manufacturers have already applied for, or obtained, broad patents that limit the number of design options. These firms asked the Commission for relief, either in the form of funding to offset their development and testing expenses or in the form of an extension of the effective date of the rule.

Blazer Corporation, a company that specializes in the distribution of micro-torches, wrote that it agrees in principle that lighters likely to be handled by children should be child-resistant. It also expressed concern that the definition of multi-purpose lighters would include micro-torches used by professionals.

Vinson & Elkins, the law firm that filed the original petition on behalf of Judy L. Carr, and four other law firms, Joseph P. Moschetta and Associates, McDermott and Hansen, Don Cooke, and Sugarman and Sugarman, P.C., provided information on incidents involving multi-purpose lighters. Mr. Cooke appeared before the Commission at the January 20, 1999, meeting to present information about a fire started by a two-year-old boy with a multi-purpose lighter that resulted in the death of the child and his mother. Another 4-year-old child was severely injured in the fire.

Independent Safety Consulting presented comments about children's fire knowledge and attraction to fire and lighters, parental perceptions regarding the hazard and storage of lighters, parental supervision, and the appropriateness of a warning label as a hazard avoidance strategy.

Ms. Lorraine Daly and Ms. Eve Mallett, both consumers, questioned the need for child resistance for products in homes without small children.

Milford Consulting Associates, a testing agency with experience testing child-resistant packaging, cigarette lighters, and multi-purpose lighters, requested certain changes to the procedures for evaluating the child-resistance of multi-purpose lighters.

Particular issues that the comments raised are discussed below.

1. Issue: Effectiveness of the Cigarette Lighter Standard

Scripto stated that there are insufficient data to conclude that the Cigarette Lighter Standard has proven effective in reducing the number of child-play fire losses associated with lighters.

Response: National fire loss estimates show a reduction in the number of estimated residential structure fires caused by children playing with all types of lighters. This reduction is occurring in spite of the fact that these estimates include fires started with multi-purpose lighters (which are not subject to a standard) and fires started by children 5 years old and older (who are older than the children addressed by child-resistant features). The estimated number of lighter child-play fires decreased from 10,600 in 1994, the year the cigarette lighter standard took effect, to 7,200 in 1996. During the same period, estimated deaths decreased from 230 to 130 and estimated injuries decreased from 1,560 to 1,090 (Ault, K., Singh, H., & Smith, L., ''1996 Residential Fire Loss Estimates,'' 10/15/98). Comparing 1996 to 1994, there was a greater percentage reduction in child-play lighter fires (32%) than the reduction in residential structure fires overall (5%). The Commission believes this reduction indicates that child-resistant cigarette lighters are preventing child-play fires. Because there was also a reduction in child-play fires started with matches, other factors, such as fire safety education or general improvements in fire safety (e.g., use of smoke detectors), are also likely to have contributed to the decrease. However, the reduction for child-play lighter fires (32%) is greater than the reduction for child-play match fires (21%). The Commission believes that the available information supports the conclusion that the Safety Standard for Cigarette

Lighters is effective in reducing child-play fires started by children under age 5 with lighters. The Commission expects child-play lighter fires to continue to decline.

Even if these data were not available, the Commission would be justified in issuing the standard. The Commission has estimated the effectiveness of the standard based on test results with children, as it did in issuing the cigarette lighter standard. As discussed in Section H of this notice, the rule is expected to reduce the number of child-play fires associated with multi-purpose lighters by at least 75%.

2. Issue: Relative Risk of Injury

Swedish Match commented that the Commission provided no data to show relative risk rates between matches and non-child-resistant multi-purpose lighters. Zelco commented that the number of fires resulting from matches is surely higher than those from multi-purpose lighters, yet matches are specifically excluded from the rule. Scripto recommended that the CPSC vigorously pursue regulatory action on matches. It stated that the societal benefits of regulating matches would far exceed those of regulating multi-purpose lighters.

Response: Comparisons between child-play fires with matches and with multi-purpose lighters are not valid, because they largely involve children of different age groups. A study of 551 juvenile fire setters conducted in Portland, Oregon, found that use of matches by children younger than age 5 was rare, but was relatively common among children of ages 6 to 11 (Porth, 1999). This is consistent with the differences in motor development for the two age groups. Using a match requires two-hand coordination, a combination of force and precision, and the control to maintain a flame long enough to light something. These factors make it a challenging task for a 3- or 4-year-old child, but much less so for older children. In short, regulating matches would have little impact on child-play fires involving children under 5. Further, the overlap in the abilities of elementary school children and adults makes it impractical to modify the design of matches so they cannot be used by older children.

In contrast, based on CPSC incident data for the period January 1, 1988, through October 15, 1999, about 70 percent of the fires started with multi-purpose lighters were started by children under 5. These fires could be effectively reduced by a requirement that multi-purpose lighters be child-resistant. In baseline testing with children 42 to 51 months of age, the child-resistance of current multi-purpose lighters ranged from 4 to 41 percent. The standard would increase the level of child-resistance to a minimum of 85 percent. The feasibility of making lighters child-resistant, yet acceptable to adults, has been demonstrated by the experience with the Safety Standard for Cigarette Lighters.

In any event, 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.

3. Issue: Definition of Multi-Purpose Lighters

a. *Exclude high-end multi-purpose lighters.* Zelco commented that the scope should be narrowed to exclude higher-end multi-purpose lighters.

Response: The Safety Standard for Cigarette Lighters excluded luxury lighters (customs or ex-factory value greater than $2.00) because they differed from disposable cigarette lighters in certain characteristics affecting risk. The staff stated that because of their cost, consumers would be less likely to leave luxury cigarette lighters in household locations accessible to young children.

Unlike luxury cigarette lighters, the more expensive multi-purpose lighters are as likely to be involved in child-play fires as the less expensive models because they are stored and used in the same manner. In fact, some of the more expensive multi-purpose lighters are relatively large and may be more difficult to store out of the reach of children. At least one expensive multi-purpose lighter is appropriate for display near the fireplace.

In addition, luxury cigarette lighters often have unusual ignition mechanisms that may be difficult for young children to operate. In the case of multi-purpose lighters, most ignition mechanisms are similar and easy for young children to operate. Multi-purpose lighters are activated by applying pressure to a trigger or button, which initiates fuel flow and causes a spark. Baseline testing indicates that one expensive lighter is as easy for children to operate as less expensive models.

Therefore, the Commission concludes that excluding the more expensive lighters would reduce the benefits of a rule for multi-purpose lighters.

b. Exclude micro-torch lighters. Both the Lighter Association and Swedish Match question the inclusion of micro-torch lighters within the scope of the rule because they do not consider micro-torches to be comparable to the grill-type or ''utility'' multi-purpose lighters. The commenters argued that micro-torches are more suited for use in activities such as soldering, welding, heat shrinking, and household repairs.

The Lighter Association, Swedish Match, and The Colibri Group suggested that the term ''micro-torch'' be deleted in order to prevent lighters primarily intended for igniting smoking materials from being incorrectly identified as multi-purpose lighters.

Blazer Corporation, a company that specializes in the distribution of micro-torches, expressed concerns that the broad definition of multi-purpose lighter in the proposed rule may be interpreted to apply to micro-torch products used by professional tradesmen or in industrial settings.

Response: The Commission considers micro-torches comparable to other types of multi-purpose lighters. As stated in the proposal, ''micro-torches'' are marketed for multiple purposes that overlap those of ''grill'' or ''utility'' lighters (*e.g.,* lighting fireplaces, camp fires, barbecues, camp stoves, etc.). All types of multi-purpose lighters are likely to be used and stored in the home in locations accessible to young children. For example, there is an incident where a child under the age of 5 started a fire with a micro-torch. It appears the child found the lighter near a gas furnace where it was used to light the pilot light.

The Commission clarified the definition of multi-purpose lighters to specifically exclude devices intended primarily for igniting smoking materials, whether or not they are subject to the requirements of the Safety Standard for Cigarette Lighters.

Regarding Blazer Corporation's concern about the application of a safety standard for micro-torch lighters to products used by professional tradesmen or in industrial settings, products intended and sold only for professional or industrial use would not be subject to a rule promulgated under the CPSA. 15 U.S.C. 2052(a)(1). If, however, a particular micro-torch model was advertised in general-circulation media (*e.g.,* consumer magazines, catalogs, newspapers, television programs, consumer-oriented Internet web sites, etc.), or was sold in hardware or other stores open to the general public, it would be considered a consumer product subject to the standard. Therefore, if Blazer's products are available to consumers, they will need to comply with the rule.

c. *Define multi-purpose lighters on the basis of length.* The Lighter Association recommended alternative language that would define multi-purpose lighters as

''a hand-held, flame producing device, * * * four inches or greater in length when in the fully extended position * * *'' It maintained that the obvious distinguishing characteristic of a grill lighter is the length of the product, which is designed to ''reach over fire or into inaccessible places.'' Zippo also supported a dimensional limitation.

Response: The Commission did not use length to define multi-purpose lighters. There are micro-torch designs that are less than 4 inches long. The hotter, directional flame of a micro-torch compensates to an extent for its shorter nozzle, making it useful for many of the same purposes as ''grill'' lighters. CPSC staff members found micro-torches convenient to use for lighting a gas grill, a gas stove burner, candles, and a water heater pilot light. Other types of multi-purpose lighters could also be designed to be under 4 inches in length and still be functionally equivalent to longer lighters.

d. *Specify the type of fuel used by multi-purpose lighters.* The Lighter Association and Zippo supported including only those lighters that use a gaseous fuel. Both indicated that it is not technologically or commercially feasible to create a utility lighter that uses liquid fuel. The Lighter Association states that they believe no liquid-fuel utility lighters are produced anywhere in the world and question the Commission's authority to regulate products that do not exist.

Response: As proposed, a multi-purpose lighter was defined as a ''flame-producing product that operates on fuel.'' There is no reference to any specific type of fuel, liquid or otherwise. The Commission concludes that any lighter that is used by consumers to ignite items such as candles, fuel for fireplaces, charcoal or gas-fired grills, and the like should be required to be child-resistant, regardless of the type of fuel, since these lighters would all present the same risk.

e. *Change the words ''self-igniting'' to ''manually operated.''* The Lighter Association recommended changing ''self-igniting'' in the definition of multi-purpose lighter to ''manually operated ignition mechanism'' since the term ''self-igniting'' is not accurate because some action is required to ignite a lighter.

Response: The Commission agrees that the term ''self-igniting'' is imprecise. Therefore, the Commission revised the definition of multi-purpose lighters in the final rule to read ''A hand-held, flame-producing product that operates on fuel [and] incorporates an ignition mechanism. * * *''

f. *Delete the exclusion for lighters with more than 10 ounces of fuel.* The Lighter Association, BIC, and Scripto objected to the exclusion of multi-purpose lighters that contain more than 10 ounces of fuel. They question the basis for this exclusion and express concern that an arbitrary cut-off invites the introduction of products that will fall outside of the scope of the rule. The Lighter Association and BIC state that there should be no limit on the amount of fuel because there are lighter attachments sold without any fuel or fuel reservoir that work with any quantity of fuel. In support of this argument, they provided a lighter attachment, with an ignition mechanism, that accommodates a 14.1 ounce propane cylinder.

Response: The final rule continues to exclude lighters that contain more than 10 ounces of fuel. As the Lighter Association recognized in its comments, this provision's purpose is to distinguish multi-purpose lighters from large propane torches, which are also used for soldering and brazing. Most multi-purpose lighters contain less than 2 ounces of fuel. A lighter with a fuel capacity of more than 10 ounces would be quite large—on the order of 3 inches in diameter by 7 inches high. Such a lighter would not be convenient for the typical uses of the lighters within the scope of the final rule. Therefore, such lighters would not likely be stored in the same locations as the smaller lighters that have been involved in child-play fires, and thus may not present the same risks.

A lighter mechanism designed to accommodate a fuel cylinder with a capacity of 10 ounces or less would clearly be subject to the requirements of the final rule. The mechanism cannot function as a multi-purpose lighter without a fuel source being attached. This is true whether the attachment is sold with or without a fuel cylinder. For example, there are currently micro-torch multi-purpose lighters that utilize disposable butane cigarette lighters as the fuel source. Some of these micro-torches are sold with the cigarette lighter and some are sold without the cigarette lighter. Both products would be subject to the requirements for child-resistance.

4. Issue: The Proposal to Require Multiple Operation Capability is Design-Restrictive

The Lighter Association, BIC, Scripto, Zippo, Swedish Match, and SNC Group strongly opposed the requirement that a multi-purpose lighter must allow multiple operations of the ignition mechanism (§ 1212.3 (b)). They characterize this provision as a design requirement that would reduce competition by narrowing the scope of complying designs and would result in wasteful patent disputes. The Lighter Association and SNC Group indicate that, as proposed, this requirement essentially mandates a design that is currently marketed by a single company. BIC reported that they have patent applications pending in the United States and in countries around the world for a multi-purpose lighter that allows for multiple operations of the ignition mechanism. BIC commented that finalizing the requirement as proposed would invite multiple patent infringement suits and severely hinder the design and implementation of creative child-resistant mechanisms. Scripto provided a test method for evaluating the lighting reliability of a lighter. The Lighter Association proposed alternative language that they believe would not limit design options.

Response: The Commission acknowledges that the multiple-operation requirement is design restrictive. For example, designs for child-resistant lighters that did not increase the risk of flashback hazard because they had a high degree of lighting efficiency and would light on the first try, but did not allow for multiple operations of the ignition mechanism, would not have been allowed.

The Commission proposed the requirement for multiple operations in response to a concern raised by Scripto and the Lighter Association that adding a child-resistant feature that resets after each operation of the ignition mechanism would create the potential for flashback in situations such as igniting a gas grill. Flashback in this context is the sudden ignition of excess fuel that has accumulated while the user is trying to light the device to be used to ignite the fuel. This is largely due to the inherent unreliability of some multi-purpose lighters to ignite with each operation of the ignition mechanism. With designs that allow multiple operation attempts before the child-resistant mechanism resets, the lighting efficiency of a child-resistant multi-purpose lighter should be essentially the same as that of the non-child-resistant lighters currently in use. Scripto's suggested lighting efficiency test was rejected because of insufficient data to show that the test represented the conditions under which consumers would use the lighters.

The central issues concerning this risk of flashback are:

1. Would a child-resistant mechanism that resets after each operation, and thus must be manipulated again before another ignition attempt can be made, delay successful ignition of a gas appliance to the extent that a flashback would result when the lighter finally ignites?

2. And if so, would the flashback have the potential to produce a serious burn injury?

The Directorate for Laboratory Sciences (lab), Division of Engineering (LSE), conducted a number of tests using gas-fired grills. The testing was conducted to determine the duration of ''delayed ignition'' that could be permitted without resulting in a ''flashback'' that could cause a serious burn injury.

Preliminary tests were conducted with three sizes of grills. The lab found that the smallest grill presented the worst-case condition. When the accumulated propane gas was ignited in the shallow well of the smallest grill, the resulting flashback reached the highest level above the cooking surface of the three grills tested. The lab used cheesecloth sleeves to determine whether clothing would ignite as a result of the flashback. The lab found that allowing the propane gas to accumulate for 20 seconds could result in a flashback that would ignite the cheesecloth sleeve. The sleeve did not ignite with a 15-second accumulation of gas.

The lab conducted 15 additional tests using the smallest grill. The gas was turned on and allowed to accumulate for 15 seconds before ignition. The tests were conducted with the cheesecloth sleeves touching the cooking surface of the grill directly above the ignition point. The cheesecloth sleeves did not ignite. Videotapes of the testing showed that the duration of the flashback events ranged from 0.6 to 1.1 seconds.

The Directorate for Health Sciences used the laboratory test results and information from the published literature on flash fires to evaluate the potential for serious burn injury. Health Sciences concluded that exposure to a very short duration flashback from propane fuel is unlikely to cause serious injury (i.e., second-or third-degree burns). Furthermore, the Division of Human Factors concluded that the actual exposure to the flashback would be even shorter than the measured duration because of the user's normal reflex to withdraw from the flashback. A shorter period of exposure would further reduce the potential for injury.

The Directorate for Engineering Sciences, Division of Mechanical Engineering (ESME), tested six brands of non-child-resistant multi-purpose lighters to determine the number of times a consumer might need to operate the ignition mechanism to produce a flame. In 50 of 53 trials, a flame was obtained in 5 or fewer attempts and, in 47 of 53 trials, in 3 or fewer attempts. The number of attempts averaged less than 3 for all brands of lighters.

The Division of Human Factors conducted a study to determine if users are capable of operating child-resistant lighters that reset after each operation at least 5 times within 15 seconds. Disposable child-resistant cigarette lighters were used for this study because, at that time, the staff was not aware of any multi-purpose lighters with child-resistant mechanisms that reset after each operation attempt. For the 7 lighters tested, the minimum number of operations achieved in 15 seconds ranged from 4 to 8. The maximum ranged from 14 to 24 operations. In most of the trials (195/209), the subjects operated the lighters 6 or more times.

The Directorate for Epidemiology, Division of Hazard Analysis, reviewed the incident data on flashback incidents associated with igniting gas appliances such as ranges, grills, water heaters, etc. The NEISS data from 1996–1998 indicated that, of the estimated 1,500 victims treated each year for burn injuries related to flashback, the majority were treated and released. About 8% of the injuries required hospitalization. Malfunction of the products being ignited, fuel leaks, and user error appeared to be contributing factors in incidents that resulted in serious injury. Although delays in ignition apparently caused several incidents, the available data provide no evidence that delay caused by difficulty in operating multi-purpose lighters results in flashback that causes serious injury.

The staff found that a flashback resulting from a 15-second accumulation of propane gas is unlikely to ignite clothing or cause a serious burn injury. The tests showed that a flame can be produced with most non-child-resistant multi-purpose lighters in 5 or fewer operations. Cigarette lighters with child-resistant features that reset after every operation were operated at least 6 times within 15 seconds in most of the trials. Therefore, the staff concluded that a child-resistant mechanism that resets after each operation of a multi-purpose lighter would not prevent a user from successfully producing a flame and igniting a gas appliance before a hazardous flashback condition could occur.

The staff found insufficient evidence to conclude that current multi-purpose lighters pose a risk of injury due to flashback, or that the addition of a child-resistant mechanism that resets after each operation would pose such a risk.

Even without the results of these tests, however, the Commission would be justified in eliminating the requirement for multiple-operation capability from the rule. First, the commenters who first raised the issue of flashback provided no persuasive data to support their concern. Second, the injury data from flashback incidents do not reveal any injuries due to small delays such as might result from child-resistant mechanisms. (The only exception to this was one incident where the person put his face over a grill to see why it did not light and kept operating the (non-child-resistant) lighter.)

Third, market pressures likely will act to reduce the risk of flashback. The only child-resistant multi-purpose lighter now on the market is capable of multiple operations without operating the child-resistant feature each time. This lighter is easy to use and is made by BIC, a large manufacturer with an extensive distribution network. This lighter is likely to bring a competitive pressure for other manufacturers to make their child-resistant multi-purpose lighters easy to use. Thus, any risk of flashback would be reduced. In addition, repeat sales of a lighter model that is hard to light would suffer. The Commission concludes that the proportion of multi-purpose lighters with inefficient ignition mechanisms that will be marketed, if any, will be small. Of this small percentage, some persons would be cautious, or follow the instructions of some appliance manufacturers, and light the flame before turning on the gas; these persons would not be at risk of flashback. The Commission notes that of the non-child-resistant multi-purpose lighters that staff tested, one manufacturer had two models that were significantly less efficient in lighting than most of the other models. While this rule contains no lighting efficiency test, should any child-resistant multi-purpose lighter's poor lighting performance result in a flashback problem, the Office of Compliance would consider appropriate action.

Therefore, the Commission is unable to support a requirement in the final rule that multi-purpose lighters must allow multiple operation attempts before the child-resistant mechanism resets. The Commission revised the requirement for multi-purpose lighters in the final rule to allow a child-

resistant feature to reset after one or more operations of the ignition mechanism.

For the reasons given above, the requirements for multi-purpose lighters in § 1212.3 of the final rule read as follows:

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

(b) The child-resistant mechanism of a multi-purpose lighter subject to this Part 1212 must:

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

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

(3) Not be easy to deactivate or prevent from complying with this § 1212.3.

(4) Except as provided in subparagraph (b)(5) of this section, automatically reset when or before the user lets go of the lighter.

(5) The child-resistant mechanism of a multi-purpose lighter subject to this Part 1212 that allows hands-free operation must:

(i) Require operation of an additional feature (e.g., lock, switch, etc.) after a flame is achieved before hands-free operation can occur;

(ii) Have a manual mechanism for turning off the flame when the hands-free function is used; and either

(iii) Automatically reset when or before the user lets go of the lighter when the hands-free function is not used; or

(iv) Automatically reset when or before the user lets go of the lighter after turning off the flame when the hands-free feature is used.

5. Discussion of ''easily deactivated''

The Lighter Association, BIC, and Scripto objected to language in the discussion of comments on the ANPR in the preamble of the proposal that states that the Commission considers an ''easily deactivated'' child-resistant mechanism to be one that can be easily disabled with a common household tool. The Lighter Association stated that this is a very significant issue because no lighter is designed to this standard and that such a requirement would mean that a lighter must be tamper-proof. BIC stated that this interpretation is unreasonable and unworkable. Scripto commented that no standard can prevent a consumer's intentional destruction or alteration of a product's safety features, and that a ''tamper-proof'' requirement is unreasonable and impractical. Scripto suggested establishment of performance criteria to determine what would constitute ''easily deactivated.''

Response: Disabling or removing the child-resistant mechanism was a common problem in the first 2 or 3 years after the effective date of the Safety Standard for Cigarette Lighters. In part, this was due to general consumer resistance to something new and less convenient. In addition, some of the early child-resistant cigarette lighter designs were difficult to operate. Effective enforcement of the standard, including pursuit of firms who purposely disabled child-resistant mechanisms on cigarette lighters offered for sale, and design changes by manufacturers to make mechanisms easier for consumers to use, appear to have reduced this problem for cigarette lighters.

The Commission expects that manufacturers will use their experience with cigarette lighters to design child-resistant mechanisms for multi-purpose lighters that will be easy for consumers to operate. In addition, many consumers have had experience with child-resistant mechanisms on other types of lighters.

The Commission is expressing no position at this time on any criterion for when a lighter is easily deactivated. If the staff identifies either a cigarette lighter or a multi-purpose lighter model with a child-resistant mechanism that it believes can be easily deactivated, the Office of Compliance would consider appropriate action.

6. Issue: Impact of a Rule on Small Companies

Donel, a small U.S. manufacturer of more expensive multi-purpose lighters, wrote that the cost and time to redesign and certify a lighter will make it very difficult for it to continue in the marketplace. It requested an additional 2-year grace period to comply with the regulations. The purpose of its request was its understanding that other firms were actively pursuing patent applications for child-resistant technology and that it needed to see what these patents covered before beginning to work on its own technology. They stated that, once the pending patents are issued, it would be able to proceed with redesigning or licensing to comply with the requirements.

SNC Group, a small U.S. firm, commented that patents filed by some companies may restrict competition, create hardship on small companies, and ultimately raise the cost to consumers. SNC Group suggested a number of possible ways to reduce the burden of a rule on small firms, including CPSC-mandated design standards in which no one manufacturer or importer has intellectual property rights, free legal counsel and testing for small businesses with proprietary designs, and providing loans to small businesses to lessen the financial hardship associated with legal advice and retooling.

Response:

Effective date. The costs of developing and testing lighters that would meet the rule's requirements may have a significant impact on some small firms that have proprietary or exclusive rights to a non-child-resistant multi-purpose lighter design. The rule provides an effective date of 12 months from the date of publication in the **Federal Register**, as to products manufactured in, or imported into, the United States on or after that date. However, an additional 2-year grace period for small firms is not appropriate.

In order to issue a rule with an effective date of more than 180 days or less than 30 days, the Commission has to find that the longer or shorter date is in the public interest. 15 U.S.C. 2058(g)(1). The 12-month effective date lessens the economic burden of the rule, especially on small firms, while providing protection to consumers in a reasonably expeditious manner.

Based on experience with the Cigarette Lighter Safety Standard, the Commission estimates that it will take an average of 12 months to develop, test, retool for production, perform production tests, and manufacture and ship the product. The results of the conformance testing must be reported to CPSC at least 30 days in advance of the importation or distribution of the lighters. In addition, the time required for importing complying lighters into the United States will be a significant consideration for many firms.

Some manufacturers, especially those that have been following this rulemaking proceeding, may have already begun developing child-resistant models. Manufacturers who have had experience with developing child-resistant cigarette lighters may be able to take advantage of that experience 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 and we are aware of other manufacturers that are working on child-resistant designs.

Manufacturers who have not followed, or only very recently started following, this rulemaking proceeding may not have begun any development work. Additionally, manufacturers that do not also produce cigarette lighters, such as some micro-torch

manufacturers, do not have prior experience developing child-resistant designs. These manufacturers may be adversely affected by an effective date shorter than 12 months.

Based on the Commission's experience with the Safety Standard for Cigarette Lighters, firms will continue to file new patents for child-resistant designs. New firms will enter the market, and others will continue working on technology for new or improved child-resistant designs. The commenters did not explain why they would not face similar issues on the delayed effective date as they will face on the proposed effective date.

Existing or pending patents may make entry into the market more difficult. However, any negative impact regarding patent infringement issues will be minimized because the standard is a performance standard rather than a design standard. Revising the requirements in the final rule to allow the child-resistant mechanism to reset either after one or more operations should also reduce some patent infringement concerns by allowing a wider variety of designs to comply with the standard.

A 12-month effective date does not mean that no benefits will occur until 1 year after the publication of the final rule. 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 are developed. Therefore, CPSC expects that the number of child-resistant multi-purpose lighters on the market will increase prior to the effective date of the rule. For the reasons, stated above, the Commission concludes that a 12-month effective date is in the public interest.

Other actions. The Consumer Product Safety Act requires that consumer product safety standards be expressed in terms of performance requirements. This may prevent the Commission from mandating a single design. Also, mandating a single design would stifle the creativity of individual manufacturers and preclude future design improvements. The Commission does not have the authority or the funding to provide loans or subsidies for legal counsel, retooling, or testing.

As noted above, the rule will adversely affect some small businesses. Nevertheless, these impacts are justified by the overwhelming fire-prevention benefits expected from the rule.

7. Costs of Testing and Certifying

Zelco commented that the Commission has failed to make allowances for small business. Zelco stated that the cost of testing and certification is exorbitant and an unnecessary burden on small companies. Zelco requested that the testing requirements be reduced or that the Commission subsidize the costs for small businesses. Donel commented that there are enormous costs involved in redesigning and certifying a child-resistant lighter.

Response: The Commission did consider the impact of testing and certifying on small businesses. The Preliminary Regulatory Analysis in the proposal estimated the average cost of testing at about $25,000 per model. However, testing and certification are necessary to ensure that all multi-purpose lighters on the market are child-resistant.

8. Issue: Supervision

Zelco commented that lighters are adult products and that, if children were supervised and taught to respect them, there would be no need for these regulations. Scripto stated that child-resistant mechanisms are not a substitute for proper adult supervision. Scripto stated that, in their experience, most instances of serious injury associated with child-play fires involved gross parental neglect.

Independent Safety Consulting commented that incidents involving multi-purpose lighters demonstrate the normal and expected range of parental behavior when it comes to supervision; accidents happen even when children are appropriately supervised. The American Academy of Pediatrics commented that adult supervision can never be perfect.

Response: Proper adult supervision is very important. Teaching children to ''respect'' adult items, and otherwise avoid hazards, is a necessary component of child rearing. It is, however, an unreliable strategy for injury prevention. Three-and 4-year-old children are fully capable of verbalizing rules repeated to them by adult caretakers. This is simple mimicry to a large extent, and does not imply either that children have a full understanding of the potential consequences of their behavior, or that they have developed sufficient control of their impulses to obey the rules with 100-percent consistency.

Congress addressed the general issue of adult responsibility in its passage of the Poison Prevention Packaging Act. The Report of the Senate Committee on Commerce (1970) stated that negligence is not the principal cause of poisoning incidents, and that there are too many potential hazards to expect that children will be adequately protected from all of them solely through adult intervention. S. Rep. No. 91–845 at 3 (1972).

The fire incident reports show that children generally were under reasonable levels of supervision at the time they started the fires. While child-resistant mechanisms do not substitute for parental supervision, they can provide a valuable measure of safety.

9. Issue: Labeling

Zelco commented that labeling requirements would be sufficient. The American Academy of Pediatrics stated that product labeling is very important, but that it will not be as effective as making the lighters child-resistant. Independent Safety Consulting commented that a label is not likely to significantly reduce these fires and that warning labels cannot affect behavior nearly as well as can a technical design change.

Response: The Commission does not believe that warning labels alone can effectively address the risks associated with multi-purpose lighters. Labeling of multi-purpose lighters (including ''Keep out of reach of children'') has always been required under the FHSA, and this has clearly been insufficient to prevent child-play fires. Since most caregivers are fully aware of the dangers of young children playing with lighters, and since incident information shows that children access these lighters 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 child-play fires with multi-purpose lighters.

10. Issue: Education

Zelco stated that the aim of these regulations could be accomplished just as easily through education. Scripto commented that the Commission must consider the need for concomitant education efforts. Swedish Match recommended that the Commission fund a strong education program to ''address consumer behavior in leaving their lighters and their young children unattended.''

The American Academy of Pediatrics commented that consumer education is very important but that it will not be as effective as making the lighters child-resistant. Independent Safety Consulting states that an education campaign is not likely to significantly reduce these fires. Child-resistant mechanisms should be coupled with information and education so that parents can be aware of the limitations of a child-resistant feature.

The Lighter Association provided information about education programs they developed with the Learn Not to Burn Foundation and the National Fire

Protection Association. The programs warn preschoolers and adults of the risk of lighters and matches. The Lighter Association also submitted an article from the January/February 1999 National Fire Protection Association (NFPA) Journal reporting that the Portland, Oregon, program showed a 36-percent decline in juvenile fire-setting as a result of use of the Youth Education Program.

BIC submitted a copy of their ''play safe! be safe!''® safety program, which was developed in 1994 in cooperation with Fireproof Children of Pittsford, New York. This program teaches young children the basics of fire prevention and shows them how to respond to specific situations in case of fire. The program is being utilized in hundreds of pre-school classrooms in the U.S. and Canada.

Response: The Commission does not believe that education alone can effectively address the risks associated with multi-purpose lighters. As an injury prevention strategy, education is less effective than product modifications, which do not rely on behavior changes. Education serves to provide the public with accurate information. For example, it may be appropriate to advise consumers that child-resistant does not mean child-proof, and that child-resistant mechanisms are intended to prevent lighter use by most children under 5.

The incident data, however, show little need for an education program to ''address consumer behavior in leaving their lighters and their young children unattended.'' The data show that, in general, children were not ''unattended,'' and that in many cases, lighters were placed where they could be thought to be ''out of reach'' but were nevertheless reached.

The effectiveness of the Youth Education Program is unsubstantiated because there are important confounding factors that preclude a valid inference of a direct cause-effect relationship between the program and any statistically significant change in fires set by juveniles. Furthermore, it is not clear that the Youth Education Program addressed the age group targeted by a standard for child resistance.

The Safety Standard for Cigarette Lighters was issued in 1993 and became effective in 1994. It is possible that the use of child-resistant cigarette lighters contributed to the drop in the proportion of fires attributable to juveniles over the 4-year period (1993/1994 to 1996/1997) cited in the NFPA Journal article (if, as noted above, children under 5 are included in the age group studied).

Given the lack of consistent evidence of their effectiveness, the Commission concludes that education programs are an inadequate substitute for the a standard that requires multi-purpose lighters to be child resistant.

11. Issue: Provisions of Test Protocol

a. *Position of on/off switch.* BIC contended that multi-purpose lighters with on/off switches should be tested with the switch in the unlocked position, rather than in the locked position, as proposed. BIC stated that many consumers would leave the lighter in the unlocked position. Further, BIC pointed out that a manufacturer could design a lighter with an on/off switch that is very difficult for a child to unlock, and with a very simple child-resistance mechanism which, in itself, would not meet the 85% child-resistance requirement.

Response: The Commission agrees with BIC's recommended modification to the test protocol because on/off switches are not adequate to serve as part of the child-resistance mechanism. First, as the Commission's baseline testing demonstrated, most children in the panel age group (42 to 51 months old) can operate the switches, which are similar to those used on many types of toys. Second, when practical, safety devices should function automatically. When in the locked position, the switch may help delay or deter some proportion of children. This protection, however, is not reliable. To provide this protection, intended users must return the switch to the locked position every time the lighter is used. For a variety of reasons, even careful adults may fail to do so. Thus, as BIC points out, test results for lighters tested with the switch in the locked position may not reflect the true child-resistance of the product as actually used by consumers.

Therefore, on August 4, 1999, the Commission published a notice in the **Federal Register** to propose that the test protocol should require that lighters with on/off switches that do not automatically reset to the locked position be tested with the switch in the on, or unlocked, position. The Commission also provided an opportunity for interested parties to present oral comments on this issue on September 15, 1999. The Executive Director of the National Fire Protection Association Center for High-Risk Outreach commented that conducting the protocol test with the lighter on/off switch in the unlocked position would add an important element of realism to the test.

Accordingly, the Commission revised the test procedure at § 1212.4(f)(1) in the final rule to provide:

Note: For multi-purpose lighters with an ''on/off'' switch that does not automatically reset to the locked position, the surrogate lighter shall be given to the child with the switch in the ''on,'' or unlocked, position.

b. *Participation of children in multiple tests.* Milford Consulting Associates endorses the provision that allows the same children to test child-resistant packaging, cigarette lighters, and multi-purpose lighters, so long as the children participate in each test on a different day. It stated that the cross learning from test to test would be negligible, but that the children's familiarity with the test setting would be facilitated by multiple tests, making the test less intimidating to the children.

Response: The Commission agrees that the cross learning from one type of test to another would be negligible. The test procedure in § 1212.4(a)(7) of both the proposal and the final rule allows children to participate in tests of different products, provided that the tests are conducted on different days.

c. *Tester quotas and lighter quotas.* Milford Consulting Associates requested some changes to the requirements for the number of children who are tested by each tester and in the number of tests conducted with each surrogate lighter. They requested that when two central location test sites are used and a tester or a surrogate lighter drops out, the remaining tests be allocated equally to the remaining testers at that one test site.

Response: Currently, the test procedure has very specific requirements for the number of children who can be tested by each tester and the number of times each surrogate lighter can be used in testing. The reason for these requirements is to minimize the impact of any one tester or any one lighter on the final test results. Based on the staff's experience with the standard for cigarette lighters, tester variability can influence the test results. In addition, surrogate lighters may vary in operation forces. Because exceeding the proposed quotas could introduce test bias, the Commission did not make any changes.

d. *Participation.* Milford Consulting Associates requested that children who refuse to attempt to operate the surrogate multi-purpose lighter throughout the entire test period should be counted in the test results, provided they are not disruptive. They stated that in a real-life situation some children would refuse to touch a lighter even while a companion is doing so.

Response: The Commission believes that refusing children should continue to be eliminated from the test results because it provides a more appropriate

test for the lighter. A child's refusal in a test may be related to the circumstances of the test and does not necessarily mean that the child would not attempt to operate a lighter in the home. The Commission believes that the 85% acceptance criterion should be based on the number of children who attempt to operate the lighter and are unable to do so. This is the procedure used in the Safety Standard for Cigarette Lighters.

e. *Orientation of lighter during demonstration.* BIC Corporation and Milford Consulting Associates requested a change in § 1212.4(f)(3) of the test protocol. In the proposed rule, during the demonstration of lighter operation to the children, the tester was instructed to hold the surrogate multi-purpose lighter in a vertical position in one hand with the child-resistant feature exposed. BIC pointed out that the normal operating position of multi-purpose lighters for many purposes is horizontal.

Response: The Commission agrees that this requirement should be changed because some multi-purpose lighters are operated in a vertical position and some are operated in a horizontal position. The final rule eliminates reference to any specific orientation. Instead, the rule provides that the tester should hold the lighter in a comfortable operating position in one hand so both children can see the operation of the child-resistant mechanism and the ignition mechanism during each demonstration. The purpose of this provision is to assure that the children are able to clearly see the operation of the lighter. As long as the children can see the operation, there is no need to hold the lighter in any particular position.

12. Issue: Anti-Stockpiling Reporting

Scripto recommends a change to the anti-stockpiling provision. This change would require information used to establish the number of lighters made or imported during the year following publication of the final rule to be filed with CPSC at the end of each calendar month instead of within 10 days of shipment, as proposed. Scripto states that this would reduce the reporting requirements and provide the Commission with better visibility and control of these shipments.

Response: Because industry members reported abuses of the similar anti-stockpiling requirement in the Safety Standard for Cigarette Lighters, the Commission proposed a reporting requirement for this rule. The Commission agrees with Scripto's recommendation, in the interest of reducing the paperwork burden on manufacturers and the staff without compromising the ability of the Commission to effectively enforce the anti-stockpiling provision. The final rule requires reporting within 10 days of the end of each calendar month, for lighters shipped within that month, instead of within 10 days of lighter shipment.

13. Issue: In-Bond Shipments

Scripto reported problems it has experienced with seizures by customs and delays at foreign ports of shipments of non-child-resistant lighters that are imported into the U.S. in bond for export to other nations. It requested CPSC to review this transit-and-export process in order to reduce unnecessary delays and paperwork in the future.

Response: Scripto refers to the process of moving noncomplying cigarette lighters manufactured in Mexico through the United States, in bond, for export to foreign countries that do not require the lighters to be child-resistant. This process is a program of the U.S. Customs Service. If contacted in advance of such shipments, the Office of Compliance is able to work with manufacturers and importers to facilitate the smooth movement of in-bond shipments.

14. Issue: Households Without Young Children

Ms. Lorraine Daly, a consumer, wrote that there is a very large percentage of older citizens in the country who don't have children in their homes and therefore don't need the protection of child-resistance on medicines or lighters. Similarly, Ms. Eve Mallett wrote, ''We can't child proof the world at the expense of childless or older people.''

Response: Available data indicate that both lighter child-play fires and accidental ingestions of medicines have occurred in the homes of older consumers. These incidents commonly occur while grandparents are baby-sitting or during family visits. The Poison Prevention Packaging Act has provisions that allow for availability of non-child-resistant packaging for medicines otherwise required to be in child-resistant packaging. These provisions allow handicapped or arthritic consumers to have ready access to their medicines. However, there is no comparable need for a consumer to have a non-child-resistant multi-purpose lighter.

In addition, unlike multi-purpose lighters, the particular design of child-resistant packaging for medicines is selected by the manufacturer or the pharmacist, not the consumer. Like child-resistant cigarette lighters, there will be a number of different multi-purpose lighter designs to choose from. The Commission believes that older consumers who can operate a current multi-purpose lighter will find a child-resistant multi-purpose lighter that they are able to operate with little or no difficulty.

Therefore, there is no need to forego the lifesaving benefits of the rule to accommodate the special needs of elderly or handicapped persons.

F. Environmental Considerations

Pursuant to the National Environmental Policy Act and CPSC's procedures, the Commission considered the potential environmental effects of the rule. Under CPSC's regulations, this rule falls within a category of actions that normally have little or no potential for affecting the human environment, and for which neither an environmental impact assessment nor an environmental impact statement is required. 16 CFR 1021.5(c)(1).

Less than 1% of the non-child-resistant multi-purpose lighters that are sold in this country are manufactured domestically. The rule is not expected to significantly alter the amount of materials, energy, or waste generated during production of the lighters. Nor should the rule 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. Potentially, the rule may cause some manufacturers to replace the molds and other tools earlier than they would have otherwise.

The rule does not require any recall of non-child-resistant lighters manufactured or imported before the effective date; therefore, there are no disposal issues with regard to such lighters. The rule is not expected to affect the manner in which multi-purpose lighters are packaged for sale, or to affect the amount of butane or other fuel used in the operation of the lighters.

The Commission concludes, from the available information, that the rule will not significantly affect raw material usage, air or water quality, manufacturing processes, or disposal practices in a way that will significantly impact the environment.

G. Statutory Findings

The CPSA also requires the Commission to make the following findings before it promulgates a rule:

(A) That the rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable

risk of injury associated with such product;

(B) That the promulgation of the rule is in the public interest;

(C) That the benefits expected from the rule bear a reasonable relationship to its costs; and

(D) That the rule imposes the least burdensome requirement that prevents or adequately reduces the risk of injury for which the rule is being promulgated. 15 U.S.C. 2058(f)(3).

The Commission has made the required findings, which are published as Appendix A to the final rule.

H. Regulatory Analysis

Before issuing a final rule, the CPSA requires the Commission to consider and make appropriate findings for inclusion in the rule with respect to:

(A) The degree and nature of the risk of injury the rule is designed to eliminate or reduce;

(B) The approximate number of consumer products, or types or classes thereof, subject to such rule;

(C) The need of the public for the consumer products subject to such rule, and the probable effect of such rule, upon the utility, cost, or availability of such products to meet such need; and

(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. 15 U.S.C. 2058(f)(1). These findings are also published in the appendix to the final rule.

Based on these findings, the Commission must, if it issues a final rule, publish a final regulatory analysis with the rule, containing:

(A) A description of the potential benefits and the potential costs of the rule, including costs and benefits that cannot be quantified in monetary terms, and the identification of those likely to receive the benefits and bear the costs;

(B) A description of any alternatives to the final rule which were considered by the Commission, together with a summary description of their potential benefits and costs and a brief explanation of the reasons why these alternatives were not chosen; and

(C) A summary of any significant issues raised by the comments submitted during the public comment period in response to the preliminary regulatory analysis, and a summary of the assessment by the Commission of such issues. 15 U.S.C. 2058(f)(2).

The Commission's final regulatory analysis of the rule on multi-purpose lighters is published below.

Final Regulatory Analysis

Requirements of the Rule

The rule addresses the risk of death and injury caused by children under the age of 5 playing with multi-purpose lighters, including micro-torches. Manufacturers or importers of products meeting the definition of ''multi-purpose lighters'' will have to certify that their products comply with the rule and provide evidence of a reasonable testing program, as required by 15 U.S.C. 2063, to support the certification. The rule specifies minimum requirements and features of the required testing program.

The test protocol is intended to determine the percentage of children in a specified age range that could be expected to be able to operate the lighter. It requires surrogates that will not produce a flame be used in the tests in place of production lighters. Up to two panels of 100 children are used to test the surrogates. If a child succeeds in operating a surrogate, a visual or audible signal is produced. If at least 85% of the children in the test panels are unable to operate the surrogates, the production lighters comply with the child-resistance requirements.

The rule also establishes certain minimum recordkeeping and reporting obligations for manufacturers, importers, and distributors. The effective date of the rule is December 22, 2000. All multi-purpose lighters manufactured in the U.S. or imported on or after this date will have to comply with the requirements of the rule.

Product and Market Information

The Product

The product subject to this rule, multi-purpose lighters, is described in Section A of this notice.

Sales, Retail Prices and Useful Product Life

Multi-purpose lighters, including micro-torches, were introduced around 1985. Sales of multi-purpose lighters increased rapidly after their introduction. Scripto-Tokai, the firm that introduced multi-purpose lighters, reports that it sold one million units the first year. Industry sources estimate that sales of multi-purpose lighters were about 20 million units in 1998 and will be approximately 21 million units in 1999. Industry sources are divided over their expectations for future sales. Some expect sales to continue to increase at the rate of 5 to 10% annually over the next several years. Others believe that the market for multi-purpose lighters is becoming satiated and that sales are likely to increase at a slower pace than in the past.

Retail prices of multi-purpose lighters have declined over the last couple of years. Currently, retail prices for multi-purpose lighters start at less than $2.50, and most sell for less than $6.00. However, some high-end multi-purpose lighters retail for $20 to $40 or more. Micro-torches have been observed retailing for as little as $12, but they more frequently retail for around $20 to more than $100. Micro-torches and other high-end multi-purpose lighters combined probably have less than 5% of the market for multi-purpose lighters.

The useful life of a multi-purpose lighter depends on how often and for what purpose it is used. If a typical multi-purpose lighter contains enough fuel for an average of 1,000 lights, a multi-purpose lighter that is used several times a day would be expected to last less than 1 year. On the other hand, a lighter that is used less than once a day, or only seasonally, could last longer.

The fuel supply is not the only thing that limits the useful life of a multi-purpose lighter. A multi-purpose lighter can break or wear out, the piezo crystals can become dirty or misaligned, the fuel lines can become clogged, and the O-rings may fail and allow fuel to leak out of the lighter. Since most multi-purpose lighters are relatively inexpensive, some may simply be misplaced by consumers.

According to industry sources, more than 18 million lighters were sold in 1997. At the same time, 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. 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 and micro-torches can be longer. These lighters are refillable and retail for $20 to more than $100. Although the unit sales of the more expensive lighters account for only a small portion of the annual sales of multi-purpose lighters, the number in use at any given time, because of their longer expected life, is likely to be somewhat higher than their share of the annual sales.

Based on the assumption that the average useful life of multi-purpose lighters is approximately one year or less, the Commission estimates that the number of multi-purpose lighters used during a given year is roughly equal to the estimated annual sales. Thus, in the period 1995 through 1998, the number

of multi-purpose lighters in use in a given year was probably in the range of 16 million to 20 million.

Manufacturers

CPSC has identified about 40 firms that manufacture, import, or privately label multi-purpose lighters. There are likely other firms, especially small importers or private labelers, that have not been identified. The number of firms participating in the market has increased as sales have increased.

Four manufacturers are members of the Lighter Association Inc., a trade association representing manufacturers of cigarette lighters. In 1997, the Lighter Association estimated that its members had more than 90% of the market for multi-purpose lighters in the United States. However, the market share of the Lighter Association members appears to be declining as competition from Asian and other imports is increasing.

The manufacturer with the largest market share is Scripto-Tokai Corporation. Although Scripto once had over 90% of the market, industry sources indicate that its share has fallen, and probably is now in the range of 80 to 90%. Most of the remaining 10 to 20% are manufactured by companies such as BIC, Swedish Match, Ronson, and various Asian manufacturers.

BIC Corporation manufactures its multi-purpose lighter in South Carolina. Only one other manufacturer, Donel, a manufacturer of high-end lighters, 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 Asia.

There are a handful of small U.S.-based companies that have proprietary designs for multi-purpose lighters. These companies generally work with Asia-based manufacturers to manufacture their products. However, the U.S.-based companies have often borne the research and development costs. Other small U.S.-based companies are known to import and privately label multi-purpose lighters for which they do not hold proprietary designs.

Substitutes for Multi-Purpose Lighters

There are a number of products that can be used for the same purposes as multi-purpose lighters. The most likely and versatile substitute is probably ordinary box or book matches. 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 matches (either book or box matches). Cigarette lighters can also be used for many of the purposes for which multi-purpose lighters are used. The retail prices of the substitutes are reasonably close to the retail prices of multi-purpose lighters. However, since sales of multi-purpose lighters have climbed rapidly from approximately 1 million units in 1985 to 20 million in 1998, we can infer that some consumers perceive that they receive greater utility from multi-purpose lighters than they would from the substitutes in some applications.

There are also reasonable substitutes for micro-torches when they are used in applications such as soldering. The closest substitutes would likely be butane or propane torches that do not have internal ignition mechanisms. These are functionally nearly identical to micro-torches when used for torch applications, except that they must be 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 reasonably similar to the cost of micro-torches.

Potential Benefits of the Rule

Societal Costs of Child-Play Fires

The rule is intended to reduce fires resulting from children under the age of 5 playing with multi-purpose lighters. The benefits to society of the rule will be the expected reduction in the societal costs of the deaths, injuries, and property damage associated with these fires.

The Commission is aware of 196 fires from 1995 through 1998 started by children under age 5 playing with multi-purpose lighters. These incidents resulted in 35 deaths, 81 injuries, and substantial property damage. The societal costs of these fires are discussed below. The analysis is limited to this 4-year period because the data available for other years are less complete.

Deaths: If we assume 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 1998 is $175 million.

Injuries: Many of the 81 non-fatal injuries were severe. At least 43 involved burn injuries. Fire burns are among the most costly of injuries in terms of the cost of medical treatment and the pain and suffering of the victim. A CPSC study estimated that: the average cost of a hospitalized fire burn injury was $898,000; the average cost of a burn injury where the victim was treated and released was estimated to be $15,000; and the average cost of a burn injury treated elsewhere was $2,000. These costs include medical and transportation costs, lost productivity, and pain and suffering. Of the 43 burn injuries, at least 15 were hospitalized and 12 were treated and released. The remaining 16 burn victims were either treated at the scene or the treatment they received is unknown. Based on the average societal costs from these types of injuries, the total cost of the burn injuries known to have occurred during this period is estimated to be at least $13.7 million ($15 \times \$898{,}000 + 12 \times \$15{,}000 + 16 \times \$2{,}000$).

At least 20 of the 81 injuries involved smoke inhalation. The CPSC study referenced above estimated that the average societal cost of a smoke inhalation injury was about $130,000 if the victim was hospitalized, and $13,000 if the victim was treated and released. If the victim was treated at the scene or received other treatment, the average societal cost was estimated to be $2,000. At least one of the smoke inhalation victims was hospitalized, and 12 were treated and released. If we assume that the remaining 7 victims were treated at the scene, the total societal costs associated with the smoke inhalation cases are estimated to be about $0.3 million ($1 \times \$130{,}000 + 12 \times \$13{,}000 + 7 \times \$2{,}000$).

The remaining 18 victims either had other types of injuries, such as broken bones or lacerations, or the type of injury was not reported. The treatment of these 18 victims was either unknown or not reported. Based on the above referenced CPSC study, the average societal costs of other non-hospitalized injuries is estimated to be $13,000. Therefore, the total societal costs of the 16 victims who had injuries other than burns or smoke inhalation can be estimated at $.2 million ($18 \times \$13{,}000$).

Based on the above discussions, the Commission estimates that the total societal costs of the injuries associated with children playing with multi-purpose lighters that we know to have occurred during the 1995 through 1998 period to be $13.4 million. This is a conservative estimate, as it includes only the incidents of which the CPSC is aware.

Property Damage: The total property damages from the 196 child-play fires known to have occurred from 1995 through 1998 exceeded $5 million. This number is conservative because it only includes the fires known to CPSC. And, of those known fires, it only includes fires where a property damage estimate was reported to CPSC.

Total Societal Costs: Summarizing all of the above costs (deaths, injuries, and property damage), the total estimated societal costs of the known incidents for

the 4-year period 1995 through 1998 is about $194.2 million, or $48.6 million annually. This comes to about $2.43 per year for each multi-purpose lighter in use. It is important to note that these cost estimates are based only on the incidents reported to CPSC, not on national fire loss estimates. There are likely to be other incidents of which CPSC is not aware.

Expected Reduction in Societal Costs

The rule is not expected to eliminate all fire incidents involving children under the age of 5. Some children in that age range will 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 rule even if up to 15% of the subjects in the test panel can operate 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% of test subjects cannot operate non-child-resistant multi-purpose lighters. Therefore, the 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%.[2]

Additionally, the overall effectiveness of the standard may be higher than the 75 to 84% estimated above for two reasons. First, manufacturers may achieve an average level of child-resistance greater than 85% to ensure that their design will always achieve at least the minimum level of child resistance required by the rule. The experience with cigarette lighters, for example, indicates that most manufacturers achieve 90% or higher child resistance.

Second, CPSC probably over-estimated the baseline child-resistance of the non-child-resistant multi-purpose lighters in use. This is because CPSC tested lighters with on/off switches in the off, or locked, position. If the lighter had been tested with the switch in the on, or unlocked, position, as required by the final rule, the baseline child-resistance would have been much lower than the 41% estimated above. We expect that some multi-purpose lighters will at times be stored with the switch in the unlocked position.

Using the lower end of the range of the estimated effectiveness of the rule, during the 1995 through 1998 time frame, societal costs of child-play fires involving multi-purpose lighters would have been reduced by about $36.5 million annually had all multi-purpose lighters been child-resistant.[3] Assuming that an average of 20 million multi-purpose lighters were used each year, the gross benefit per lighter would have been about $1.82. If there were child-play fires involving multi-purpose lighters during this period of which CPSC is not aware, or if a substantial number of consumers store multi-purpose lighters unlocked, the estimated benefits would have been higher.

Potential Costs of the Rule

Manufacturing costs. Manufacturers will incur costs to modify their products to comply with the rule. In general, costs that would be incurred by the manufacturers 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 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 of the modification of assembly steps, in the manufacturing process;
- The additional labeling, recordkeeping, certification, testing, and reporting that will be required for each model.
- Various administrative costs of compliance, such as legal support and executive time spent at related meetings and activities; and
- Lost revenue if the child-resistant features adversely affect sales.

Industry sources have not provided firm estimates of these costs. However, the Lighter Association stated that its members believed the costs would average between $0.25 and $0.75 per lighter. One major manufacturer, BIC, has introduced a child-resistant multi-purpose lighter. Because BIC did not previously manufacture a non-child-resistant lighter, a spokesman was unable to estimate the incremental cost of developing and manufacturing child-resistant multi-purpose lighters.

Research and Development Costs. One manufacturer speculated that the costs of developing, testing, and retooling for production of multi-purpose lighters might be $1 million per manufacturer, if it is possible to adapt the same technology used to make cigarette lighters child-resistant. However, the manufacturer stated that, if it were not possible to adapt the cigarette lighter technology, the costs could be as high as $5 million per manufacturer. Two other manufacturers provided lower estimates of the costs. They expected to spend $100,000 to $1 million. However, they stressed that these were guesses and that unforeseen problems, such as problems stemming from patents owned by others, could increase the costs. After evaluating this conflicting information from some manufacturers, it seems likely that the average investment in research, development, and retooling would be no more than $2 million.

If, as discussed above, there are 20 manufacturers of multi-purpose lighters and research and development costs are as high as $2 million per manufacturer, then the total industry-wide research, development, and retooling costs will be about $40 million. If these costs are amortized over 10 years and sales increase at an annual rate of 1% from a base of 21 million units in 1999, then the research, development and retooling costs will average about $0.23/unit. For a manufacturer with a large market share (*i.e.*, selling several million units annually) the cost per unit for research, development and retooling may be significantly lower than this. On the other hand, for manufacturers with a small market share, such as the manufacturers of high-end lighters and micro-torch lighters, the per-unit development costs could be substantially greater, because these costs would be amortized over a significantly lower production volume. However, the information available is insufficient to provide a reliable estimate of the cost per unit for the higher-end and micro-torch-type lighters.

Material and Labor Costs. In addition to the research, development, and retooling costs, material and labor costs are likely to increase. For example, additional labor will be required to add the child-resistant mechanism to the

[2] The estimated minimum improvement in child resistance due to the rule for any given non-child-resistant lighter is calculated by dividing the percentage improvement in child resistance (the 85% minimum requirement of the rule minus the baseline child resistance of the non-child-resistant lighter) by the percentage of children that can operate the non-child-resistant lighter (100% minus the baseline %). For example, the least child-resistant lighter in the baseline testing (4% child resistance) would show an estimated 84% improvement in child resistance, and the same percent reduction in child-play fires [(85 − 4)/(100 − 4) = 81/96 = 84%]. The most child-resistant lighter in the baseline testing would show a 75% improvement [(85 − 41)/(100 − 41) = 44/59 = 75%].

[3] Calculated by multiplying the estimated $48.6 million in societal costs by 0.75 (the expected reduction in such fires).

lighter during assembly. Additional materials may also be needed to produce the child-resistant mechanism. While CPSC was unable to get reliable estimates, some industry sources indicated that these costs would be 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 rule allows substantial flexibility to the manufacturer for things such as color, size, and location, this requirement is not expected to increase the costs significantly.

Certification and Testing Costs. Certification and testing costs include the costs of producing the surrogates needed in the testing, conducting the child-panel tests, and issuing and maintaining records for each model. These costs could average $25,000 per model. However, the cost for any individual firm may be different. The cost for conducting child-panel tests for one model could be substantially lower if only one panel is required. The cost could be higher if the manufacturer must use a second panel or redesign a model that failed the initial test. The cost of designing surrogates could range from virtually nothing (if the production lighter has an audible signal, such as a click, that occurs when it has been operated successfully) to several thousand dollars (if surrogates must be designed and built).

These costs are incurred only once, and would therefore, be amortized over the entire production of the model. Based upon the estimates described above, the amortized certification and testing costs are expected to average less than one cent per unit. However, for models with small market shares, the cost per unit for certification and testing may be higher.

Administrative Costs. There may be some additional and ongoing administrative expenses associated with compliance and related activities. While these expenses are difficult to quantify, they are expected to be slight and have little impact on the unit costs.

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 may 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 be mitigated if other countries adopted similar standards.

Total Manufacturing Costs. The rule will likely increase the total cost of manufacturing multi-purpose lighters by about $0.48 per unit. This estimate is in the $0.25 to $0.75 per unit range provided by the Lighter Association in response to the ANPR. The low end of the range provided by the Lighter Association may be more accurate if the additional material and labor costs are significantly less than estimated above.

The increased cost of manufacturing multi-purpose lighters will, for the most part, ultimately be borne by consumers. Generally, the increased cost of production will be passed on to the consumer in the form of higher prices. Assuming a 100% markup over the incremental cost to manufacturers (estimated at $0.48/unit) the rule may be expected to increase the retail price of multi-purpose lighters by $0.96 per unit. However, some manufacturers may be unable to pass all of the incremental costs directly to the consumers. This may be especially true in the case of the up-front research and development costs. In these cases, the costs may be indirectly borne by consumers in such forms as generally higher prices on the range of products produced by the manufacturer. The retail prices for high-end and micro-torch multi-purpose lighters will probably increase by more than $0.96 per unit, since their costs per unit are greater. However, since the high-end and micro-torch lighters comprise such a small portion of the market, this should not significantly affect the average cost of producing multi-purpose lighters.

Net Benefits

As previously discussed, the rule is expected to produce a gross societal benefit of $1.82 per lighter and to increase the cost to consumers by about $0.96 per unit. Therefore, the expected net benefit of the rule is $0.86 per multi-purpose lighter sold ($1.82—$0.96). Since annual sales of multi-purpose lighters exceed 20 million units, the rule should result in net societal benefits of at least $17.2 million annually ($0.86 × 20 million = $17.2 million). As discussed previously, the actual net benefits may differ from the estimates if some of the assumptions used in computing the estimates prove inaccurate.

Other Impacts of the Rule

Stockpiling. The rule contains anti-stockpiling provisions, authorized by section 9(g)(2) of the CPSA, to prohibit excessive production or importation of noncomplying lighters during the 12-month period between the publication date and the effective date of the rule. The provision would limit the production or importation of noncomplying products to 120% of the amount produced or imported in the most recent calendar year before the issuance of the final rule.

While the anti-stockpiling provision should have little impact on the market as a whole, it may adversely impact any small importers or manufacturers that were just entering the market. Such firms may have had low sales volume in their first year or two of operation, and thus their base volume would be low. In the absence of the anti-stockpiling provisions, they may have been able to increase their sales volume by a greater proportion than would be allowed under the anti-stockpiling provision. There is no limit on the number of child-resistant multi-purpose lighters that may be imported, manufactured, or sold during this period.

Effects on Competition and International Trade

The rule is not likely to have a significant adverse impact on competition. Scripto-Tokai Corporation introduced multi-purpose lighters in 1985 and for many years maintained a market share of 90% or more. Although Scripto-Tokai is still the dominant manufacturer, its market share has dropped in the face of increased competition from other manufacturers and importers. BIC has already introduced a multi-purpose lighter that meets the requirements of the rule. Moreover, the Commission is aware of several other manufacturers, including some small firms that are actively developing child-resistant multi-purpose lighters. These multi-purpose lighters are expected to be on the market by the time the rule becomes effective.

Impact on Small Business

CPSC has identified about 40 manufacturers, importers, and private labelers of multi-purpose lighters. Although the dominant firms are not small, a significant number of the remaining firms are considered to be small businesses according to guidelines established by the Small Business Administration (SBA). The rule may have a significant impact on some of the small firms.

The small businesses that are most likely to be impacted by the rule are

those that market multi-purpose lighters to which they have proprietary or exclusive rights. These firms will likely have to bear the up-front costs of developing the child-resistant features, as well as the retooling and certification costs. As noted, these costs could exceed $100,000 even if few problems are encountered. If problems are encountered (*e.g.*, designs that infringe upon patents held by others or initial designs that fail the certification tests) the costs could exceed $2 million.

Of the small firms known to the Commission, seven have proprietary or exclusive rights to particular multi-purpose lighter models. Some of these firms are actively developing child-resistant models, and one is already marketing a multi-purpose lighter that it believes to be child-resistant (although it has not been tested). Thus the added burden is not insurmountable by small firms. However, some small firms may decide that the added costs are too great and cease marketing their proprietary designs. Other small businesses that currently market multi-purpose lighters and micro-torches do not have proprietary or exclusive rights to any multi-purpose lighter model. These companies either import or privately label lighters produced by other firms. In these cases, the manufacturer or firm that actually owns the design will likely bear most of the research, development, retooling, and certification costs. Since these manufacturers often supply product to more than one importer or private labeler, the costs are likely spread over a higher production volume. Moreover, multi-purpose lighters usually account for only a small percentage of many of the importers' and private labelers' sales. Therefore, even if a small importer or private labeler stopped importing or distributing 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.

Although there will be adverse effects on some small businesses, these effects are justified by the greater safety benefits expected from the rule.

Impact on Utility to the Consumer

The rule may reduce the utility that consumers receive from multi-purpose lighters if child-resistant multi-purpose lighters are more difficult to operate than are non-child-resistant models. This could result in some consumers switching to substitute products, such as cigarette lighters or matches. However, as was the case with child-resistant cigarette lighters, manufacturers are likely to develop child-resistant multi-purpose lighters that are at most only slightly more difficult for adults to operate than are non-child-resistant lighters. 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 must already meet the same child-resistance standard that multi-purpose lighters will have to meet. Although consumers that switch to matches (as opposed to using child-resistant cigarette or multi-purpose lighters) may increase the risk of child-play fires from matches somewhat, matches are inherently more child-resistant than non-child-resistant multi-purpose lighters. 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 the rule by no longer offering micro-torches that have internal ignition mechanisms. The consumer would, therefore, have to use an external ignition source to light the torch. Although this option could decrease manufacturing costs, it could reduce the convenience and utility of the micro-torches. Consumers will have to provide external ignition sources, such as matches, to ignite the torches. It will also take more time to ignite such a torch, since both hands will be required and the worker or consumer will have to put down what they were working with to pick up the ignition source.

Alternatives Considered to the Rule

The Commission considered several possible alternatives to the rule. These alternatives included (1) not taking any action and relying on voluntary efforts, (2) issuing labeling requirements instead of performance requirements, and (3) narrowing the scope of the rule. The Commission also considered different effective dates and some alternatives aimed at reducing the burden on certain small businesses.

No Action/Rely on Voluntary Efforts. The Commission considered the impact of taking no action to reduce the occurrence of fires started by children playing with multi-purpose lighters. If no mandatory rule is issued, some manufacturers may still introduce child-resistant multi-purpose lighters. While these manufacturers can emphasize the safety of their product, they would be at a competitive price disadvantage compared to manufacturers who continued to sell non-child-resistant lighters. This would result in a lower level of benefits than would be obtained with the rule.

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%. Thus, the benefits to society of taking no action or relying on voluntary efforts would be lower than they would be under a mandatory rule.

Currently, there is no voluntary standard for child-resistant multi-purpose lighters, and no apparent industry interest in adopting one. The Commission potentially could work with appropriate standards-setting organizations to try to develop such a standard, but it is not clear that an acceptable voluntary standard could be developed with sufficient speed, or that conformance would be adequate.

Labeling Requirements

The Commission considered the impact of not issuing a performance standard, but to instead require 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 be low.

Narrowing the Scope

The Commission considered the impact of exempting the more expensive multi-purpose lighters from the rule. This would have been analogous to the exemption in the cigarette lighter standard for the more expensive non-novelty cigarette lighters. In that case, however, there was little evidence of involvement of those expensive lighters in child-play fires.

There are 3 firms that are known to market high-end multi-purpose lighters; all 3 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 6 firms that are known to distribute micro-torches, 3 have fewer than 100 employees and are considered to be small businesses.

For the reasons given in the response to comments on the proposal, Section E of this notice, the Commission believes that the more expensive multi-purpose lighters are as likely to be involved in child-play fires as are the less expensive models and should not be excluded.

The Commission also considered the impact of excluding micro-torches from the rule. As noted, the Commission

received several comments from the lighter industry, in response to the NPR, encouraging the Commission to exclude micro-torches. For the reasons given in the response to comments in Section E of this notice, the Commission believes that micro-torches will be stored around the home in the same way that multi-purpose lighters are. Therefore, they will be accessible to small children and should not be excluded from the standard.

The Commission is aware of one incident involving a fire started by a child under the age of 5 with a micro-torch-type lighter. The lighter was being used to light the pilot light of a gas furnace, a use more characteristic of multi-purpose lighters than of torches. However, micro-torch lighters represent only a small portion of the multi-purpose lighters in use. Micro-torches probably account for significantly less than 5% of sales of multi-purpose lighters. Therefore, the lack of other incidents involving micro-torches may be related to the low number of these products in use.

Alternatives To Reduce the Burden on Small Businesses

The Commission considered several exemptions or special provisions to reduce the regulatory burden on certain small businesses. These provisions would have applied only to businesses that met the SBA definition of a small business and were not owned by or a subsidiary of a larger company, unless the combined employment would still meet the SBA criteria.

Alternative Effective Date. The Commission considered establishing an effective date of more than the proposed 12 months after the date of publication of the final rule in the **Federal Register**, for some small manufacturers. The intent of such an extension would be to reduce the burden of the rule on small firms by giving them extra time to develop child-resistant lighters and bring them to market. However, for the reasons given in Section E of this notice, the Commission decided that an effective date exceeding 1 year from the rule's publication was not in the public interest.

Exemption from testing. The Commission considered exempting some small businesses from the requirement to conduct the child-panel certification tests, if the firm had a reasonable basis to believe that the multi-purpose lighter would pass the tests if they were conducted. However, the Commission concluded that conducting these tests is necessary to ensure that the lighter is child-resistant. The actual child-panel tests are a small part of the entire cost of designing and bringing a child-resistant lighter to market. Although the average cost of this testing per model may be about $25,000, the costs may vary among firms. On the low end, the costs may be as low as $10,000 if surrogates do not have to be designed, only one panel of children is required, and the company can conduct much of the testing internally. On the other hand, the costs could exceed $40,000 if the company has to design surrogates, use more than one child-panel for the tests or has to redesign the lighter because it fails the test. If a manufacturer is confident that its design is child-resistant, it should also be confident that the cost of the certification testing will be on the low side of the estimated range of costs. Furthermore, the testing is a one-time cost. Once a design passes the qualification test, it does not have to be tested again for child-resistance.

If certain small firms were exempted from the testing, and one of their models was later found not to be child-resistant, the cost to the manufacturer of a recall could exceed the cost of the testing. Moreover, if an exemption from testing were granted and a lighter model were in fact not child-resistant, it could lead to hundreds of thousands, or even millions, of non-child-resistant multi-purpose lighters being introduced into commerce. Just one additional child-play fire incident associated with such a lighter could result in societal costs that greatly exceed the cost of the certification testing. Therefore, the Commission does not believe that it is in the public interest to exempt small firms from the testing requirements of the rule.

I. Final 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 § 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.[4] The Commission's initial regulatory flexibility analysis (IRFA) was published with the proposed rule.

The final regulatory flexibility analysis (FRFA) is to contain:

(1) A succinct statement of the need for, and objectives of, the rule;

(2) A summary of the significant issues raised by public comments in response to the initial regulatory flexibility analysis, a summary of the assessment of the agency of such issues, and a statement of any changes made in the proposed rule as a result of such comments;

(3) A description of, and an estimate of the number of, the small entities to which the rule will apply or an explanation of why no such estimate is available;

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

(5) A description of the steps the agency has taken to minimize the significant economic impact on small entities consistent with the stated objectives of applicable statutes, including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.

The Need for and Objectives of the Rule

The rule addresses the risk of death and injury from residential fires started by young children under the age of 5 playing with multi-purpose lighters. Since 1988, the Commission has identified 237 fires that were started by children under age 5 who were playing with multi-purpose lighters. These fires resulted in a total of 45 deaths and 103 injuries. Because these are only the incidents known to the CPSC, the actual numbers may be higher. The societal cost of these fires is about $48.6 million annually. Requiring that multi-purpose lighters be child-resistant, as defined in the rule, will significantly reduce the number of fires started by children under the age of 5.

Firms Subject to the Rule

The rule covers manufacturers, importers, private labelers, distributors, and retailers of multi-purpose lighters, including micro-torches, intended for sale to consumers. All firms that manufacture or import multi-purpose lighters will have to certify that their

[4] 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.

multi-purpose lighters are child-resistant. These firms will also be subject to the reporting and recordkeeping requirements in the rule.

The number of firms that manufacture, import, or privately label these lighters is increasing. While about 40 firms have been identified, there may be other companies that have not been identified. Except for two manufacturers (one large and one small), all firms are believed to be importers rather than domestic manufacturers. Several of the importers are subsidiaries of larger firms or foreign manufacturers. Although the dominant firms are not small, as many as 20 of the remaining firms may be considered to be small businesses according to the SBA.

The small businesses that are most likely to be substantially impacted by the rule are those that have proprietary or exclusive rights to specific multi-purpose lighter models. These firms will likely have to bear the up-front costs of developing the child-resistant features, retooling, and certification. These costs could exceed $100,000, even if few problems are encountered. The costs could be as high as $2 million if problems are encountered, such as designs that infringe upon patents held by others or initial designs that fail the certification tests.

Of the small firms known to the Commission, seven are believed to have proprietary or exclusive rights to particular multi-purpose lighter models. Some of these firms are actively working on developing child-resistant models. One is already marketing a multi-purpose lighter that it believes to be child-resistant, although it has not been certified in accordance with the requirements of the rule. Thus, although the rule will impose costs on small firms, this burden is not insurmountable, and some small firms with proprietary designs should be able to compete successfully after the rule goes into effect. However, some firms may decide that the added costs are too great and cease marketing their proprietary non-child-resistant designs.

Many of the small businesses that market multi-purpose lighters and micro-torches do not have proprietary or exclusive rights to any multi-purpose lighter model. These companies either import or privately label lighters produced by other firms. The impact on these companies is not likely to be significant. The manufacturers or firms that actually own the designs will likely bear most of the research, development, retooling, and certification costs. Since these manufacturers often supply product to more than one importer or private labeler, the costs are likely to be spread over a higher production volume. Furthermore, even if a small importer or private labeler stopped importing or distributing multi-purpose lighters, it is not likely to suffer a significant adverse effect if multi-purpose lighters account for a small percentage of its total sales, as is thought to be the case with many of the importers.

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.

Issues Raised by the Public Comments on the IRFA

Several issues were raised in the public comments on issues relating to the IRFA. These issues include: the proposed requirement for multiple operations, money for legal counsel and testing, that CPSC should mandate a specific design, that the effective date should be longer, that the cost of certification testing is excessive, and alternatives to be considered to the proposed rule. The Commission's responses to these comments are given in Section E of this notice.

Reporting and Recordkeeping Requirements

All manufacturers and importers of multi-purpose lighters will be required to keep certain records regarding the certification testing and production (quality control) testing of their multi-purpose lighters. The preparation of the records should not require any skills that would not typically be possessed by or available to a manufacturer or importer. For example, the production testing is very similar to the quality control testing that most manufacturers undertake routinely. There are also independent quality control and engineering laboratories and other professional consultants with which firms can contract for these services.

In order to perform the certification tests, the manufacturers will have to supply at least 6 empty surrogates. Most manufacturers will probably be able to use empty production lighters for the surrogates (if the lighter makes an audible ''click'' when the ignition mechanism is operated properly). Other manufacturers may have to develop surrogates for use in the certification tests that produce an audible or visual signal when the ignition mechanism is successfully operated. This may involve technical knowledge of miniature electronics that some small firms may not have in-house. However, there are independent engineering firms with this expertise with which small firms may contract.

Conducting the certification tests and preparing the supporting documentation does not require any special technical skill or extensive training. Manufacturers could conduct the conformance tests with in-house personnel, but it is likely that many will employ private consulting or testing services. The records of the testing would likely be compiled by the firm conducting the testing and maintained by the manufacturer or importer. Manufacturers or importers would keep copies of other reports or certification records.

The rule also allows importers to rely on testing by or for a foreign manufacturer to support the rule's certification and reporting requirements, provided that the records (1) are in English, (2) are complete, (3) can be provided to the Commission within a reasonable time, 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 (indeed, on any importer), to the extent manufacturers supply lighters to more than one importer.

At least 30 days before it first imports or distributes a multi-purpose lighter model, the manufacturer or importer must provide written notice to the CPSC. Among other things, this report is to include basic identifying information as to the manufacturer or importer, a description of the lighter model and its child-resistance features, a description and summary of the certification testing, and the location where the other required records will be kept. The manufacturer or importer must also supply the CPSC with a prototype or production unit of the lighter model.

The reporting requirements of the 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 rule. The estimated reporting burden, however, is low—less than 100 hours per model in the initial production year (including the certification testing) and significantly less than this in subsequent years.

Assuming that approximately 20 manufacturers, with 1 to 2 models each, introduce child-resistant multi-purpose lighters during the first year after the

publication of the final rule, the total paperwork and reporting burden for all manufacturers will be 2,000 to 4,000 hours. In subsequent years, the total paperwork and reporting burdens should be significantly less. For example, if three new models are introduced annually, the total burden will be approximately 300 hours.

Other Alternatives Considered

The Commission considered four basic alternatives to certain elements of the rule. Specifically, the Commission considered (1) narrowing the scope to exclude high-end and/or micro-torch multi-purpose lighters, (2) requiring only additional labeling, (3) taking no action and relying on voluntary efforts, and (4) alternative effective dates. These alternatives were rejected for the reasons given in the Commission's Regulatory Analysis in Section H of this notice.

Summary and Conclusions

The rule will affect all manufacturers and importers of multi-purpose lighters, including a number of manufacturers and importers that are small businesses. The small firms that import or manufacture multi-purpose lighters will be impacted by the rule's performance, certification, recordkeeping, and reporting requirements. The higher costs of manufacturing child-resistant lighters that their suppliers incur will likely be passed on to these firms as well. Some of the firms may have temporary disruptions in their supply of multi-purpose lighters because of the rule. However, it is unlikely that any of these effects would be significant.

In addition to the small importers, there are a few small firms that manufacture their own multi-purpose lighters or have their own proprietary designs manufactured for them. The rule may have a more significant impact on these firms since they will likely bear most of the cost of developing and certifying the child-resistant mechanisms for their multi-purpose lighters.

The Commission considered some alternatives to the rule that might have reduced the burden on small manufacturers. However, these alternatives were rejected since the level of safety that would be achieved was lower under these alternatives than under the rule. These alternatives included taking no action, requiring additional labeling only, exempting the high-end multi-purpose lighters from the scope of the rule, and extending the effective date.

J. Effects on the Elderly and Handicapped

Section 9(e) of the CPSA requires that, in promulgating a consumer product safety rule, ''the Commission shall also consider and take into account the special needs of elderly and handicapped persons to determine the extent to which such persons may be adversely affected by such rule.'' 15 U.S.C. 2058(e). The following discussion examines the potential effect of the rule on elderly and handicapped persons.

The rule is unlikely to have a significant impact on the elderly or handicapped who can operate non-child-resistant multi-purpose lighters. The lighter industry now has several years experience in the design of child-resistant mechanisms for cigarette lighters, and it is reasonable to expect that this experience will be applied to child-resistant devices for multi-purpose lighters. Early designs for cigarette lighters were somewhat cumbersome and often inconvenient to use, leading to customer complaints and to intentional defeat of some types of child-resistant mechanisms by some persons. Since the Safety Standard for Cigarette Lighters became effective, child-resistant mechanisms have evolved. Although some types are less than ideal, others are transparent, or nearly so, to the user.

Current multi-purpose lighters typically are operated by a trigger (operated with the forefinger) or a button (operated with the thumb), and are easy to use with one hand. Child-resistant versions of these lighters will probably require some additional action or force, and thus may be at least somewhat more complex or less convenient to operate than non-child-resistant lighters. However, because ease of use is critical to consumer acceptance, it is likely that multi-purpose lighters will continue to be operable with one hand, and that the child-resistant devices will not be overly difficult to use.

The staff reviewed three child-resistant multi-purpose lighter designs. The child-resistant device on each product is a latch that blocks the operating mechanism. Two have trigger-style operating mechanisms. These have devices built into the top side of the handle, in line with the expected placement of the user's thumb. One trigger-style lighter requires that the user apply a force of 1.25 kg or 2.75 kg (depending on placement) with the thumb to unlatch the operating mechanism. This requires both knowledge of how the device works and a level of strength below the average for a tested sample of subjects aged 60 to 89 years of age for a similar task (Imrhan, 1989). The other requires the user to first slide a button backward (toward the palm) approximately ⅛ inch before pulling the trigger. The latter requires only knowledge, because the action of sliding the button backwards is counter to the normal motion when holding and operating the lighter, but requires only nominal force and dexterity.

The third lighter has a slide-button operating mechanism positioned on the top of the handle. It requires that a second slide latch on the reverse side of the handle be pushed sideways before the lighter can be operated. Although simple in principle, this third lighter does not fit the user's hand, and requires coordination to operate. Provided clear instructions are included on the packaging, the first two types should be usable by handicapped and elderly persons who can operate current non-child-resistant lighters. The third is likely to be difficult for users in general. Competitive forces should ensure that elderly and handicapped consumers will find one or more products they are able to use.

K. Paperwork Reduction Act

As explained above, the standard and the certification provisions will require manufacturers and importers of multi-purpose lighters to test surrogate and production lighters, 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 was 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 rule will require approximately 100 hours per model for the first year, and substantially less in subsequent years. The time required for testing is expected to average about 80 hours per model. 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 rule is approximately 4,000 hours in its initial year or so, and substantially less in later years.

L. Executive Orders

This rule has been evaluated in accordance with Executive Order No. 13,132, and the rule has no substantial federalism implications.

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 standard or regulation of the State or political subdivision (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.

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.

For the reasons set out in the preamble, the Commission amends 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

Sec.
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

Sec.
1212.20 Stockpiling.
Appendix A to Part 1212—Findings Under the Consumer Product Safety Act

Subpart A—Requirements for Child-Resistance

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

§ 1212.1 Scope, application, and effective date.

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 in the United States, or imported, on or after December 22, 2000.

§ 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, etc.) means: A hand-held, flame-producing product that operates on fuel, incorporates an ignition mechanism, 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. Some multi-purpose lighters have a feature that allows for hands-free operation.

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

(i) Devices intended primarily for igniting cigarettes, cigars, and pipes, whether or not such devices are subject to the requirements of the Safety Standard for Cigarette Lighters (16 CFR part 1210).

(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)(1) *Surrogate multi-purpose lighter* means a device that

(i) 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,

(ii) Has no fuel,

(iii) Does not produce a flame, and

(iv) 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.

(2) 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% of the child-test panel when tested in the manner prescribed by § 1212.4.

(b) The child-resistant mechanism of a multi-purpose lighter subject to this part 1212 must:

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

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

(3) Not be easy to deactivate or prevent from complying with this § 1212.3.

(4) Except as provided in paragraph (b)(5) of this section, automatically reset when or before the user lets go of the lighter.

(5) The child-resistant mechanism of a multi-purpose lighter subject to this part 1212 that allows hands-free operation must:

(i) Require operation of an additional feature (e.g., lock, switch, etc.) after a flame is achieved before hands-free operation can occur;

(ii) Have a manual mechanism for turning off the flame when the hands-free function is used; and either

(iii) Automatically reset when or before the user lets go of the lighter when the hands-free function is not used; or

(iv) Automatically reset when or before the user lets go of the lighter after turning off the flame when the hands-free feature is used.

§ 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 ± 2 children (20 ± 1 males; 10 ± 1 females) 42 through 44 months old;

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

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

Note to paragraph (a)(4): 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 minus 90 = 4). Multiply the difference in years by 12 months (*i.e.,* 4 years × 12 months = 48 months). Subtract the number for the month of the birth date from the number of the month of the test date (*i.e.,* 8 minus 6 = 2 months). Add the difference in months obtained above to the number of months represented by the difference in years described above (48 months + 2 months = 50 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 months − 1 month = 49 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 participate.

(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 ± 2 children each for 5 testers and 17 ± 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 ± 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 it produces 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 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 8½ 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 ''on,'' or unlocked, 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 comfortable operating position in one hand so both children can see the operation of the child-resistant mechanism and the ignition mechanism during each demonstration. Say ''now watch the lighter.'' Look at each child to verify that they are both 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.

Note to paragraph (f)(3): The demonstration is conducted with each child's lighter, even if one child has successfully operated the lighter. Testers shall 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 with an on/off switch shall have the switch returned to the position the child left it at the end of 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 lighters or matches, 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% 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% 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% of the child test panel, and no further testing is conducted. (2)(i) 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% 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% of the child test panel, and no further testing is conducted.

(ii) 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.

(a) Before issuing a final rule, the Consumer Product Safety Act (CPSA), 15 U.S.C. 2058(f)(1), requires the Commission to consider and make appropriate findings for inclusion in the rule with respect to:

(1) The degree and nature of the risk of injury the rule is designed to eliminate or reduce;

(2) The approximate number of consumer products, or types or classes thereof, subject to such rule;

(3) The need of the public for the consumer products subject to such rule, and the probable effect of such rule, upon the utility, cost, or availability of such products to meet such need; and

(4) 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

(b) The CPSA, 15 U.S.C. 2058(f)(3), also requires the Commission to make the following findings before it promulgates a rule, and to include such findings in the rule:

(1) That the rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable risk of injury associated with such product;

(2) That the promulgation of the rule is in the public interest;

(3) That the benefits expected from the rule bear a reasonable relationship to its costs; and

(4) That the rule imposes the least burdensome requirement that prevents or adequately reduces the risk of injury for which the rule is being promulgated.

(c) The required findings are included as Appendix A to this part 1212.

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.* (i) 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:

(A) The importer is a resident of the United States or has a resident agent in the United States and

(B) 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).

(ii) The importer is responsible for ensuring that:

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

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

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

(D) 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,

(E) 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

(F) 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 of this subpart, 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 of this subpart.

§ 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), 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 1-year period ending December 21, 1999.

(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 December 22, 1999 and December 22, 2000, 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 by January 21, 2000.

(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 of the end of each calendar month, for lighters shipped within that month.

(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.

Appendix A to Part 1212—Findings Under the Consumer Product Safety Act

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. Because the findings are required to be published in the rule, they reflect the information that was available to the Consumer Product Safety Commission (''CPSC'' or ''Commission'') when the standard was issued on December 22, 1999.

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 Commission has identified 196 fires that occurred from 1995 through 1998 that were started by children under age 5 playing with multi-purpose lighters. These fires resulted in a total of 35 deaths and 81 injuries. Fire-related injuries include thermal burns—many of high severity—as well as anoxia and other, less serious injuries. The societal costs of these fires is estimated to include $175 million in deaths, $13.7 million in injuries, and over $5 million in property damage. 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 16 CFR 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. Approximately 21 million multi-purpose lighters are expected to be sold to consumers in the U.S. during 1999. Multi-purpose lighters manufactured in the United States, or imported, on or after December 22, 2000 will be required to meet child-resistance requirements. The following products are not multi-purpose lighters: devices intended primarily for igniting cigarettes, cigars, and pipes, whether or not such devices are subject to the requirements of the Safety Standard for Cigarette Lighters (16 CFR part 1210); devices that contain more than 10 oz. of fuel; and matches.

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.

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:

- 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.

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 20 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 $40 million. If amortized over a period of 10 years, and assuming a modest 1% sales growth each year, the average of these costs would be about $0.23 per unit. 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 $0.23 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 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.

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. In total, the rule will likely increase the cost of manufacturing multi-purpose lighters by about $0.48 per unit.

9. At the present time, one manufacturer has about 80–90% of the market for multi-purpose lighters. The other manufacturers, importers, and private labelers divide up the remaining 10–20% 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.

D. *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.

1. Assuming a 100% markup over the incremental cost to manufacturers (estimated at $0.48/unit), the rule may be expected to increase the retail price of multi-purpose lighters by $0.96 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.

2. 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.

3. The total societal costs of fires known to have been started during 1995 through 1998 by children under age 5 playing with multi-purpose lighters was approximately $194.2 million, or $48.6 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 20 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 $2.43 per lighter ($48.6 million ÷ 20 million lighters) per year. The rule is expected to reduce this cost by 75 to 84%. Therefore, the expected societal benefit of the rule in terms of reduced fires, deaths, injuries, and property damage is expected to be at least $1.82 per complying lighter sold.

4. As discussed above, the rule may increase the cost of manufacturing multi-purpose lighters by $0.48 and may increase the retail prices by as much as $0.96. 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 $0.86 per unit ($1.82—$0.96). Based on annual sales of approximately 20 million units per year, the rule would result in an annual net benefit to consumers at least $17.2 million (20 million × $0.86) annually.

5. 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.

E. *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.* 1. 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.

2. 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.

F. *The rule (including its effective date) is reasonably necessary to eliminate or reduce an unreasonable risk of injury.* 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.

G. *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 $48.6 million annually, will also be greatly reduced. The rule is expected to reduce this societal cost by 75–84%, or by greater than $36.5 million. The estimated annual costs to the public are expected to be less than $20 million. Therefore, substantial net benefits will accrue to consumers. Thus, the Commission finds that a reasonable relationship exists between the expected benefits and the expected costs of the standard.

H. *The rule imposes the least burdensome requirement which prevents or adequately reduces the risk of injury for which the rule is being promulgated.* 1. 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. Alternatives that would be more burdensome to industry would have higher costs to consumers. Less burdensome alternatives would have lowered the risk-reduction benefits to consumers. No alternative has been identified that would result in a higher level of net benefits to consumers.

2. A less stringent acceptance criterion of 80% (rather than the standard's 85%) 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%) 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% 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.

3. The standard becomes effective 12 months after it is issued December 22, 2000. The Commission also considered an effective date of 6 months after the date of issuance of the final rule. Although 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. A longer effective date was deemed unsuitable because it would unduly delay the lifesaving benefits of the standard and would penalize firms that have already begun to develop child-resistant multi-purpose lighters.

I. *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. The standard provides substantial net benefits to society. Although certain alternatives to the final rule were estimated to also have net benefits to consumers, they would decrease the level of safety. Therefore, the Commission finds that the standard is in the public interest.

Dated: December 13, 1999.

Sadye E. Dunn,

Secretary, Consumer Product Safety Commission.

List of Relevant Documents

(**Note:** This list of relevant documents will not be printed in the Code of Federal Regulations.

1. Letter from J. Carr, to Honorable Ann Brown, Chairman, U.S. Consumer Product Safety Commission, petitioning the Commission to initiate rulemaking proceedings to amend the Safety Standard for Cigarette Lighters to include the Scripto Aim 'n Flame® disposable butane ''multi-purpose lighter.'' (Received by CPSC February 15, 1996)
2. Letter from T. Stevenson, Deputy Secretary and Freedom of Information Officer, Office of the Secretary, CPSC, to J. Carr, February 23, 1996.
3. **Federal Register** Notice, (Requesting Comment on Petition) ''Petition CP 96–1 Requesting a Child-Resistance Standard for Multi-Purpose Lighters,'' May 7, 1996.
4. Petition Comment CC 96–3–1, F. Hon, President, Calico Brands, Inc, May 30, 1996.
5. Petition Comment CC 96–3–2, B. Radnofsky, Esq., and C. Guthrie, Vinson & Elkins, L.L.P., June 12, 1996.
6. Petition Comment CC 96–3–3, M. Reynolds, Group Vice President, Colibri Corporation, June 17, 1996.
7. Petition Comment CC 96–3–4, J. Geremia, Ph.D., June 17, 1996.
8. Petition Comment CC 96–3–5, D. Denton, July 2, 1996.
9. Petition Comment CC 96–3–6, M. Forys, Senior Vice President, Administration, Scripto-Tokai Corporation, July 3, 1996.
10. Petition Comment CC 96–3–7, D. Baker, General Counsel, Lighter Association, Inc., July 5, 1996.
11. Petition Comment CC 96–3–8, D. Carson, Esq., Carson, Carson, & Carson, July 5, 1996.
12. Petition Comment CC 96–3–9, M. McLoughlin, Customer Relations Manager, Pinkerton Group Inc. (A Swedish Match Company), July 8, 1996.
13. Briefing Package, ''Multi-Purpose Lighter Petition,'' November 26, 1996.
14. ''Petition to initiate rulemaking proceeding to amend 16 CFR 1210 Safety Standard for Cigarette Lighters to include the Scripto Aim 'n Flame[®] disposable butane 'multi-purpose' lighter within the scope of the Safety Standard for Cigarette Lighters'' (CP 96–1), February 1996 (Tab A of 11/26/96 Briefing Package).
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16. Smith., L., ''Fire Incidents Involving Multi-Purpose Lighters,'' CPSC, Division of Hazard Analysis, November 12, 1996 (Tab C of 11/26/96 Briefing Package).
17. Karels, T., ''Economic Consideration of the Petition on Multipurpose Lighters,'' CPSC, Directorate for Economic Analysis, November 25, 1996 (Tab D of 11/26/96 Briefing Package).
18. Meiers, C., ''Attractiveness and Appeal of Multi-Purpose Lighters to Children (Petition CP 96–1),'' CPSC, Division of Human Factors, September 19, 1996 (Tab E of 11/26/96 Briefing Package).
19. Smith., L., ''Response to Public Comments, Multi-Purpose Lighter Petition-CP 96–1,'' CPSC, Division of Hazard Analysis, November 12, 1996. (Tab F of 11/26/96 Briefing Package).
20. Perry, E., ''Response to Comments on Multi-Purpose Lighters,'' CPSC, Directorate for Engineering Sciences, September 6, 1996 (Tab G of 11/26/96 Briefing Package).
21. Meiers, C., ''Response to Public Comments on Requiring Multi-Purpose Lighters to be Child-Resistant (Petition CP 96–1), CPSC, Division of Human Factors, September 16, 1996 (Tab H of 11/26/96 Briefing Package).
22. Poth, R., ''Comments In Response to Petition CP 96–1 For Child-Resistant Multi-Purpose Lighters, CPSC, Office of Compliance, September 18, 1996 (Tab I of 11/26/96 Briefing Package).
23. **Federal Register** Notice, ''Multi-Purpose Lighters; Advance Notice of Proposed Rulemaking; Request for Comments and Information,'' 62 Fed. Reg. 2327 (January 16, 1997).
24. **Federal Register** Notice, ''Multi-Purpose Lighters; Extension of Period for Issuing a Notice of Proposed Rulemaking,'' 63 Fed. Reg. 1077 (January 8, 1998).
25. ANPR Comment CH 97–1–1, G. Phelps, President, International Association of Arson Investigators, Inc., August 26, 1996.
26. ANPR Comment CH 97–1–2, B. Radnofsky, Esq. and C. Guthrie, Vinson & Elkins, LLP, October 17, 1996.
27. ANPR Comment CH 97–1–2a, B. Radnofsky, Esq. and C. Guthrie, Vinson & Elkins, LLP, January 6, 1997.
28. ANPR Comment CH 97–1–2b, B. Radnofsky, Esq. and C. Guthrie, Vinson & Elkins, LLP, March 11, 1997.
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33. ANPR Comment CH 97–1–7, R. McLeod, MSN, RN, CS, CPNP, President, National Association of Pediatric Nurse Associates & Practitioners, Inc., March 17, 1997.
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35. ANPR Comment CH 97–1–9, D. Bruce Kehoe, Esq., Wilson Kehoe & Winingham, March 4, 1998.
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37. Briefing Package, ''Proposed Standard for Multi-Purpose Lighters,'' CPSC, July 15, 1998.
38. Draft **Federal Register** Notice, ''Utility Lighters; Notice of Proposed Rulemaking,'' (Tab A of 7/15/98 Briefing Package).
39. Franklin, R., ''Preliminary Regulatory Analysis of Multi-Purpose Lighters,'' CPSC, Directorate for Economic Analysis, July 14, 1998 (Tab B of 7/15/98 Briefing Package).
40. Letter from T. Kelleher, Senior Vice President-Administration, General Counsel and Secretary, BIC, to B. Jacobson, CPSC, ''BIC® SureStart™ Utility Lighter,'' May 8, 1998 (Tab C of 7/15/98 Briefing Package).
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43. Jacobson, B., ''Advance notice of proposed rulemaking,'' CPSC, Division of Health Sciences, July 2, 1998 (Tab F of 7/15/98 Briefing Package).
44. Sushinsky, G., ''Gas Grill Ignition Tests,'' CPSC, Directorate for Laboratory Sciences, June 29, 1998 (Tab G of 7/15/98 Briefing Package).
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46. Franklin, R., ''Response to Comments Concerning Economic Issues Raised by Comments to the ANPR on Multi-Purpose Lighters, ''CPSC, Directorate for Economic Analysis, July 14, 1998 (Tab I of 7/15/98 Briefing Package).
47. Bogumill, M., ''Response to Comments on Multi-Purpose Lighter ANPR,'' CPSC, Office of Compliance, June 5, 1998, (Tab J of 7/15/98 Briefing Package).
48. Briefing Package, ''Supplemental Information—Proposed Standard for Multi-

Purpose Lighters,'' CPSC, September 10, 1998.

49. Smith, L., ''Fire Incidents Involving Multi-Purpose Lighters,'' CPSC, Division of Hazard Analysis, August 20, 1999 (Tab A of 9/10/98 Briefing Package).

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92. Smith, L., ''Fire Incidents Involving Multi-Purpose Lighters,'' CPSC, Directorate for Epidemiology, November 3, 1999 (Tab A of 11/19/99 Briefing Package).

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103. Draft **Federal Register** Notice, ''Rule to Regulate Under the Consumer Product Safety Act Risks of Injury Associated with Multi-Purpose Lighters That Can Be Operated by Children,'' (Tab L of 11/19/99 Briefing Package).

104. Draft **Federal Register** Notice, ''Safety Standard for Multi-Purpose Lighters,'' (Tab M of 11/19/99 Briefing Package). 3

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