

TAB K



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
WASHINGTON, DC 20207

Memorandum

Date: October 29, 1999

TO: Barbara Jacobson, Project Manager, HS
Multi-Purpose Lighters

Through: Jacqueline Elder, ^{JE} Deputy Assistant Executive Director
Office of Hazard Identification and Reduction

Robert B. Ochsman, Ph.D., Director, ^{RBO}
Division of Human Factors

FROM: Catherine A. Sedney, HF (1282) ^{CS}

SUBJECT: Effect of the Proposed Rule on Elderly and Handicapped Persons

Section 9 (e) of the Consumer Product Safety Act requires the Commission to consider the special needs of elderly and handicapped persons when issuing a consumer product safety rule. This section also requires the Commission to determine the extent to which such persons may be adversely affected by a consumer product safety rule. The following discussion addresses this requirement.

The proposed rule on multi-purpose lighters is unlikely to have a significant impact on the elderly or handicapped who can operate non-CR multi-purpose lighters. The lighter industry now has several years experience in the design of CR mechanisms for cigarette lighters, and it is reasonable to expect that this experience will be applied to CR devices for multi-purpose lighters. Early designs for cigarette lighters were somewhat cumbersome and often inconvenient to use, leading to customer complaints and intentional defeat of some types of CR mechanisms. Since the effective date of the Safety Standard for Cigarette Lighters, CR mechanisms have evolved. Although some types are less than ideal, others are transparent, or nearly so, to the user, and some are no less convenient for adults than were non-CR lighters.

Current multi-purpose lighters typically are designed with a trigger-style (operated with the forefinger) or a button-style (operated with the thumb) operating mechanism, 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-CR 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 CR devices will not be overly difficult to use.

Staff has reviewed two multi-purpose designs that have met the proposed child-resistance test requirements. Each has a trigger-style operating mechanism with a CR device that blocks the operating mechanism. The CR devices are built into the top side of the handle, in line with the expected placement of the user's thumb. One requires that the user apply a push 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 &

Loo, 1989). The other requires the user to first slide a button backward (toward the palm) approximately 1/8 inch before pulling the trigger. The latter requires only knowledge, because the action of sliding the button backwards is counter to the normal direction of force applied with the thumb when holding and operating the lighter. Provided clear instructions are included on the packaging, both types should be usable by handicapped and elderly persons who can operate current non-CR lighters. As with cigarette lighters, there may be CR multi-purpose lighters that are too difficult or too inconvenient for many consumers. However, it is expected that competitive forces will ensure that among the types available, elderly and handicapped consumers will find one or more products they are able to use.

Reference

Imrhan, S.N. & Loo, C.H. (1989). Trends in finger pinch strength in children, adults, and the elderly. *Human Factors*, 31, 689-701.

TAB L

DRAFT

Billing Code 6355-01P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1145

Rule to Regulate Under the Consumer Product Safety Act Risks of Injury Associated with Multi-Purpose Lighters That Can Be Operated by Children

AGENCY: Consumer Product Safety Commission.

ACTION: Final rule.

SUMMARY: Elsewhere in this issue of the **FEDERAL REGISTER**, the Commission issues a safety standard for multi-purpose lighters to reduce risks of injury that are associated with the lighters because they can be operated by young children. In this notice, the Commission determines by rule, under section 30(d) of the Consumer Product Safety Act, that it is in the public interest to issue the safety standard, or to take any other regulatory action to address risks of injury that are associated with multi-purpose lighters due to the fact that they can be operated by children, under the Consumer Product Safety Act, rather than under the Federal Hazardous Substances Act or the Poison Prevention Packaging Act.

DATE: This rule is effective [insert date that is 30 days after publication in the **FEDERAL REGISTER**].

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

FOR FURTHER INFORMATION CONTACT: Concerning legal aspects: Harleigh Ewell, Attorney, Office of the General Counsel, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301)504-0980, ext. 2217.

Concerning the Safety Standard for Multi-Purpose Lighters: Michael Bogumill, Office of Compliance, Consumer Product Safety Commission, Washington, D.C. 20207; telephone (301) 504-0477, ext. 1206; email mbogumill@cpsc.gov.

SUPPLEMENTARY INFORMATION:

A. INTRODUCTION

The Commission determines by rule that it will regulate those risks of death and injury that are associated with multi-purpose lighters, and that are due to the fact that the lighters can be operated by young children, under the Consumer Product Safety Act ("CPSA"), 15 U.S.C. 2051-2084. Young children do not appreciate all of the consequences of using the product. Those consequences can include the ignition of clothing and other articles in the household,

and may result in injury or death of the child operating the multi-purpose lighter, or other persons. These risks will be regulated under the CPSA, rather than under the Federal Hazardous Substances Act ("FHSA"), 15 U.S.C. 1261-1277, or the Poison Prevention Packaging Act ("PPPA"), 15 U.S.C. 1471- 1476.

Section 30(d) of the CPSA, 15 U.S.C. 2079(d), provides that a risk of injury associated with a consumer product that could be eliminated or reduced to a sufficient extent by action under the FHSA or the PPPA may be regulated under the CPSA only if the Commission, by rule, finds that it is in the public interest to regulate such a risk of injury under the CPSA. Elsewhere in this issue of the **FEDERAL REGISTER**, the Commission issues a rule under the CPSA that will impose child-resistance requirements on multi-purpose lighters. Information on the safety hazards associated with the use of multi-purpose lighters by young children, and on other aspects relating to the need for and provisions of the Safety Standard for Multi-Purpose Lighters can be found in the portion of this issue of the **FEDERAL REGISTER** that issues the standard.

As discussed below, it might be possible to adequately reduce those risks by action taken under the FHSA or the PPPA. Nevertheless, the Commission has determined that it is in the public interest to regulate those risks of injury under the CPSA rather than the FHSA or the PPPA because the

authority of the CPSA is more appropriate to address risks of injury associated with a mechanical, flame-producing device than are the authorities of the FHSA or the PPPA.

In the rule issued elsewhere in this issue of the **FEDERAL REGISTER**, to be codified at 16 CFR Part 1212, multi-purpose lighters are defined 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.

16 CFR 1212.2(a).

B. CHOICE OF STATUTE

Of the statutes administered by the CPSC, the CPSA, the FHSA, and the PPPA provide potential authority for a child-resistance requirement for multi-purpose lighters. The possible regulatory options include issuing a consumer product safety standard under the CPSA, a banning rule under the FHSA, and a rule to establish requirements to make multi-purpose lighters "significantly difficult for children under five years of age" to operate under the PPPA.

The risks of injury associated with multi-purpose lighters that can be operated by children arise because multi-purpose lighters are mechanical devices intended to produce flame and can be operated by children.

The CPSA includes provisions authorizing the Commission to issue performance and labeling requirements applicable to multi-purpose lighters when such requirements are "reasonably necessary" to eliminate or reduce an unreasonable risk of injury associated with that product. This authority is suitable for issuing requirements to address hazards associated with young children starting fires with multi-purpose lighters.

Part of the rule for multi-purpose lighters that is issued elsewhere in this issue of the **FEDERAL REGISTER** is a certification rule that requires the manufacturer or importer to conduct tests to ensure that the lighters comply with the safety requirements of the rule. This testing is

necessary to ensure the effectiveness of the rule, because the complex and time-consuming child-panel tests in the standard make it impractical for the Commission to routinely test for compliance. It is possible that similar testing requirements could be promulgated under the authority of section 10(a) of the FHSA, 15 U.S.C. 1269(a), that the Commission may issue "regulations for the efficient enforcement" of the FHSA. However, the authority of the CPSA is explicit in this regard and, thus, is preferable.

The Commission has determined that a stockpiling rule is in the public interest because it will help ensure the effectiveness of any standard for multi-purpose lighters. Neither the FHSA or the PPPA explicitly authorizes such a rule.

The FHSA includes provisions that authorize the Commission to require special labeling for, and in some circumstances to ban, a household product that is or contains a "hazardous substance." The FHSA authorizes the Commission to regulate multi-purpose lighters because they are containers of lighter fuel, which is a "hazardous substance" as that term is defined in the FHSA. However, no provision of the FHSA expressly authorizes the Commission to address a hazard that is associated with the mechanical operation of a multi-purpose lighter as a flame-producing device. The changes needed to reduce the risk of child-play fires also involve the mechanical characteristics of the

lighter's operating mechanism. Thus, the CPSA is a more appropriate statute for regulating the mechanical risk of child resistance.

Under the PPPA, the Commission may issue a rule requiring the "package" -- that is, the multi-purpose lighter -- to be "significantly difficult" for children younger than 5 years of age "to open or obtain a toxic or harmful amount of the substance contained therein." However, the ability of young children "to open" the fuel-containing portion of the multi-purpose lighter or "obtain a toxic or harmful amount" of the fuel are not the risks of injury associated with multi-purpose lighters that the Commission is now addressing. Rather, it is the risk of death and injury from fires started by children with multi-purpose lighters. This risk arises from the mechanical operation of the multi-purpose lighter, and from the ability of young children to manipulate the multi-purpose lighter to produce a flame.

Additionally, the PPPA allows the manufacturer of a substance subject to special-packaging requirements to use packaging that is not child-resistant if (1) the substance is also distributed in child-resistant packages and (2) the packages that are not child resistant are labeled "This package for households without young children." This provision, by allowing the marketing of non-child-resistant multi-purpose lighters of the types covered by the rule,

could significantly impair the effectiveness of the rule to reduce the risk of injury.

The Commission received one comment on the proposed rule to issue child-resistance requirements for multi-purpose lighters under the CPSA. BIC Corporation disagreed with the Commission's characterization of a multi-purpose lighter as a "package" for butane, as that term is used in the PPPA. BIC cited two court decisions that support its contention.

The Commission has not changed its view that a lighter can be a package for the fuel it is sold with, and at least one court has agreed with this view. See Carlson v. BIC Corp., 840 F. Supp. 457, 467 (E.D. Mich. 1993). However, even if BIC were correct that multi-purpose lighters are not packages of butane under the PPPA, this simply would provide further support for the Commission's decision to regulate the risk arising from children's operation of these lighters under the CPSA. Thus, no change to the proposed rule is required in response to this comment.

Therefore, for the reasons given above, the Commission is issuing a rule to determine that it is in the public interest to regulate under the CPSA any risks of injury associated with the fact that multi-purpose lighters can be operated by young children. This finding will be codified at 16 CFR 1145.17. The rule shall become effective immediately upon its publication in the **FEDERAL REGISTER**. 5 U.S.C.

553(d)(3). (There is a 1-year delayed effective date for the safety standard itself.)

C. IMPACT ON SMALL ENTITIES

The Regulatory Flexibility Act ("RFA"), 5 U.S.C. 603-612, requires agencies to prepare and make available for public comment an initial regulatory flexibility analysis of the impact of any proposed rule on small entities, including small businesses. A final regulatory analysis is required when a final rule is issued. 5 U.S.C. 604. The RFA further provides, however, that an agency is not required to prepare a regulatory flexibility analysis if 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(b). The regulation issued below does not by itself impose any legal or other obligation on any person or firm. The rule simply expresses the Commission's determination that any action taken to eliminate or reduce risks of injury associated with multi-purpose lighters due to the fact that they can be operated by children will be taken under the authority of the CPSA rather than the FHSA or the PPPA. In issuing the safety standard for multi-purpose lighters, the Commission followed all applicable provisions of the CPSA. The RFA also applies to the safety standard, and the Commission has certified that the Safety Standard for Multi-Purpose Lighters will not have a significant economic impact on a substantial number of small entities. Because this final

rule under section 30(d) of the CPSA imposes no obligation on any person or firm, the Commission hereby certifies that this 30(d) rule will not have a significant economic impact on a substantial number of small entities.

D. ENVIRONMENTAL CONSIDERATIONS

The rule issued below falls within the categories of Commission action described in 16 CFR 1021.5(c) as having little or no potential for affecting the human environment, and the Commission has no information that would indicate otherwise. Therefore, neither an environmental assessment nor an environmental impact statement is required.

E. CONCLUSION

After consideration of the information discussed above, the Commission finds that for any regulatory action needed to address risks of injury associated with multi-purpose lighters due to the fact that they can be operated by children, it is in the public interest to regulate such risks under the CPSA rather than the FHSA or the PPPA. This determination does not affect other hazards associated with multi-purpose lighters, such as that some lighters are subject to FHSA labeling because the lighters contain fuel that is flammable or toxic or generates pressure. Provisions of the FHSA and the PPPA authorize the Commission to address risks of injury associated with the fuel contained within a multi-purpose lighter because the fuel is a "hazardous substance" as that term is defined by the FHSA.

List of Subjects in 16 CFR Part 1145

Administrative practice and procedure, Consumer protection, Fire protection, Infants and children, Packaging and containers, Multi-purpose lighters.

For the reasons given above, the Commission amends Title 16, Chapter II, Subchapter B, of the Code of Federal Regulations as follows:

PART 1145--REGULATION OF PRODUCTS SUBJECT TO OTHER ACTS UNDER THE CONSUMER PRODUCT SAFETY ACT

1. The authority citation for Part 1145 is amended to read as follows: Authority: 15 U.S.C. 2079(d).
2. A new § 1145.17 is added to read as follows:

§ 1145.17 Multi-purpose lighters that can be operated by children; risks of death or injury.

(a) The Commission finds that it is in the public interest to regulate under the Consumer Product Safety Act any risks of injury associated with the fact that multi-purpose lighters can be operated by young children, rather than to regulate such risks under the Federal Hazardous Substances Act or the Poison Prevention Packaging Act of 1970.

(b) Therefore, if the Commission finds regulation to be necessary, risks of death or injury that are associated with multi-purpose lighters because the lighters can be operated by young children shall be regulated under one or more provisions of the Consumer Product Safety Act. Other risks that are associated with such lighters, and that are based solely on the fact that the lighters contain a hazardous substance, shall continue to be regulated under the Federal Hazardous Substances Act.

Dated: _____, 1999.

Sadye E. Dunn, Secretary,
Consumer Product Safety Commission

TAB M

DRAFT

Billing Code 6355-01P

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; such products are already subject to a child-resistance standard at 16 CFR Part 1210.

DATES: The rule will become effective [insert date that is 1 year after publication] 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, email 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; email 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

¹58 FR 37554. The standard became effective July 12, 1994.

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 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 most recent calendar year before the

publication date 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 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.

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.

Even if the deaths were being caused by children who are inadequately supervised, however, this would not argue for not making appropriate protective changes to multi-purpose lighters. Inadequate supervision can be only partially addressed by education efforts. The deaths of children and others in fires should not be tolerated as the penalty for inadequate supervision.

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."