MEMORANDUM

DATE: SEP 10 1996

TO: Barbara Jacobson, EHHS
    Project Manager, Multi-Purpose Lighter Petition

Through: Robert Frye, Director, EHHA

FROM: Linda E. Smith, EHHA, x 1275

SUBJECT: Fire Incidents Involving Multi-Purpose Lighters

This memorandum provides fire incident data in response to Petition CP 96-1 that requests a child-resistant standard for multi-purpose lighters.

Background/Methodology

The petitioner requested amendment of the existing Safety Standard for Cigarette Lighters, 16 CFR, part 1210, to include multi-purpose lighters. This standard requires that lighters subject to the standard have child-resistant features to prevent operation by most children under age five.

All Consumer Product Safety Commission (CPSC) data bases\(^1\) were searched starting in January 1985 to identify fires involving multi-purpose lighters in which the fire was started by a child under age five.

Results

Reports identified a total of 53 fires started by children under age five using multi-purpose lighters from January 1988 to the present. These fires resulted in a total of 9 deaths and 25 injuries. During this period, 5 or fewer fires occurred annually through 1994 (Figure 1). In 1995, 12 fires occurred that resulted in 2 deaths and 4 injuries. In 1996, 21 fires occurred that resulted in 3 deaths and 12 injuries during roughly the first eight months of the year. This increase in number of

\(^1\)Data bases searched include consumer complaints, newspaper clippings, death certificates, hospital emergency room-treated injuries, and investigation reports.
incidents is thought to be related to the increase in number of units in use. See memorandum from Terry Karels, Directorate for Economics, dated August 21, 1996. In addition to the casualties involved, the fires also caused property damage. Although many of the reports did not indicate the amount of property damage, 12 reports cited property damage over $50,000.

Eight of the 9 fatalities were the children who started the fire. At least 3 of the 22 injured persons required hospitalization for treatment. The most serious involved a 15-month-old infant hospitalized for second and third degree burns over 80 percent of his body when his two-year-old brother ignited the playpen in which he was sleeping. Children under age five typically are incapable of dealing with the fire once it is started and their proximity may put them at special risk of injury.

It is noted that the incidents cited above are conservative counts of the number of incidents occurring. Based on available data, it is clear that many multi-purpose lighter fires are being reported only as "lighter" fires. Seven incidents were identified only after the follow-up investigation was completed. Several uninvestigated reports of multi-purpose lighter fires cited "child play" but not the age of the child. These were not included in this memorandum but some of the children may be under age five. Two additional fires were started by children, ages 5 and 6, with Downs Syndrome, a condition that affects mental
development. The 6-year-old was the child of the petitioner and was cited as being at the 3 to 4-year-old developmental level.

Given the small number of incidents and the variety of sources from which these incidents were reported, it is not possible to make an estimate at this time of the total number of fires and casualties. To develop an estimate, long-term follow-up of all child-play fires involving both multi-purpose lighters and lighters in general would be necessary.

The scenarios in these incidents are similar to those known to involve disposable cigarette lighters. Among the 49 fires in which the sex of the fire starter was known, 6 were girls, 43 were boys. The children typically found the multi-purpose lighters in a variety of locations such as kitchen counters or tops of furniture. Others, however, searched out the lighters in more inaccessible locations, such as high shelves or cabinets, where parents tried to hide them. Three investigation reports indicated that the children involved had demonstrated that they were capable of operating the on/off switch.

Conclusion

Available data indicate that the number of incidents of child play fires involving multi-purpose lighters was small up to 1995, including the period during which the safety standard for cigarette lighters was promulgated. Recent data, however, indicate that the numbers of fires are increasing rapidly. This suggests that, at a minimum, CPSC staff should continue to monitor this hazard.