LOG OF MEETING
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: ASTM F 15.45 for Candle Products

DATE OF MEETING: September 10, 1999

DATE OF LOG ENTRY: September 13, 1999

SOURCE OF LOG ENTRY: Margaret Neily, ESME

LOCATION: La Mansion del Rio, San Antonio, TX

CPSC ATTENDEES: Margaret Neily, ESME

NON-CPSC ATTENDEES: Members of the ASTM F 15.45 Subcommittee for Candle Products

SUMMARY OF MEETING: Jim Becker, Vice Chairman of the Subcommittee, chaired the meeting. Eileen Hendrick, Terminology Task Group Chairman, reported that the Terminology Standard was approved in January. Although not yet published by ASTM, members of the Subcommittee should receive a final version of the standard with the minutes of this meeting. There should be a new ballot to add "synthetic wax" to the "candle" definition as agreed at the January meeting.

Linda Allison, Glass Container Task Group Chairman, reported that the group has been meeting monthly by phone. The performance standard(s) will address problems with the finished glass product and will use ASTM standards where applicable. Key design factors to be addressed include annealing, surface treatments, surface shock, and unacceptable attributes. The first of these, annealing, is being developed now based on ASTM C 148-95. Manufacturers are conducting tests on their products to help establish appropriate acceptance criteria. A draft standard for annealing may be ready for balloting within 6 months.

George Pappas, Sooting (Smoking) Task Group Chairman, reported that Dr. Walter Schutz has agreed to CoChair the Task Group. Schutz chairs a similar group working on this issue in Europe (next meeting in September) and plans sharing of information between the two groups. Under the direction of John Blair, Chairman of ASTM F 15, Pappas formed a small, informal steering committee of industry members to draft an "experiment"—a simple method for distinguishing a well made candle (correct materials and design) that burns with no visible smoke and a problem candle that smokes. While most manufacturers do much more testing, formulators need a simple
tool to identify problems. Smoking is apparently a quality issue and one of interest to
the insurance industry, but not particularly safety-related.

A draft test method from the steering committee, without acceptance criteria, was
distributed for comments by Subcommittee members on its usefulness, possible
qualitative criteria, and quantification methods. It calls for burning a single candle
under a clean white tile which collects combustion products over a specified time
period. A gray scale might be used to grade the material collected. Pappas also
requested that members submit other test methods that might be applicable to a
meaningful measurement of visible smoke produced by candles. Comments on the
method and alternative tests are to be submitted to Carl Hudson by November 1, 1999.

The Group has not thought about emissions of lead or volatile organic materials that
appear to have a more direct relation to safety concerns voiced by the Commission staff,
the media, and others. They intend to get to these issues eventually. Attendees,
including several wick manufacturers, were confident that lead wicks are no longer used
in the U.S. and European markets. They were uncertain about the situation in the Asian
market where Australia recently announced a ban on lead candle wicks.

John Root, Labeling Task Group Chairman, reported on the negative comments
received on the ballot earlier this year. CPSC staff recommended that section 5.2.1 of the
balloted standard require a cautionary label of adequate size (providing favorable reading
conditions), allowing the minimum as an exception for smaller products. The
Subcommittee ruled the comment as non-persuasive because "too small to accommodate"
was viewed as too subjective, especially in court. The smaller label is needed for small
individual units of sale—votives and tapers, particularly.

References to the ANSI labeling standard, recently revised to require signal word to be
50% larger than other text, will be removed retaining the provision for "WARNING", to
be 10% larger than other text. Space limitations on small products cannot accommodate
this increase in size.

The label text will be modified to include "help": WARNING: To Help Prevent Fire.

The Labeling standard will be reballed with these and other editorial changes discussed
at the meeting. ASTM will be informed of the disposition of non-persuasive comments.

J.C. Edmonds, Data Task Group Chairman, reported on recent NFIRS (1997) and
NEISS (1998) data regarding candle fire incidents. Fires in 1997 increased; however, the
rate of increase has gone down. In 1998, NEISS estimated 10,728 injuries involving
candle fires. Frequencies of various parameters (location, materials ignited, reasons for
ignition) were discussed. Margaret Neily, CPSC, noted that a special study of candle fire
incidents previously planned for FY2001 may be moved up to FY2000 in the current
operating plan. A study of this type could give more details of fire scenarios, types of
candles involved, and other information necessary for effective standards development.
Self-extinguishing Candles—two members suggested forming a task group for a standard for self-extinguishing candles. While one favored limiting it to pillar or free-standing candles, the other saw this as a broader problem not limited to pillars. Many manufacturers have self-extinguishing candles now. Jim Becker shared relevant new activities of the National Candle Association Technical Committee. The group met on 9/8 and identified 20 or so factors in four types of candles that are important for burning, such as dripping, flame height, self-extinguishment, etc. They intend to compile data on these factors for pillars, tapers, votives, and glass-filled candles. With consensus, they hope to develop guidelines for members, e.g. the flame height for a pillar candle should be ____ inches. Becker chose not to set up another task group at this time, but proposed to have the NCA Technical Committee information on burning factors by the next meeting of ASTM F 15.45.

The next meeting of the ASTM F 15.45 Subcommittee will be in the Washington/Baltimore area, tentatively in April 2000.