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U.S. Consumer Product Safety Commission

LOG OF MEETING

SUBJECT: Evaluate reloadable tube aerial shell devices and determine whether additional tube integrity requirements are appropriate. Begin discussion on how to develop a test procedure for distinguishing the difference between aerial salute charges (excluding small firecracker type paper salutes/reports) and loud break charges that are being classified as salutes.

DATE OF MEETING: November 9, 2004

LOG ENTRY SOURCE: Neal G. Gasser, Chemist

DATE OF LOG ENTRY: January 26, 2005

LOCATION: Hilton Hotel, Huntsville, Alabama

CPSC ATTENDEE(S): James G. Joholske, CRC-FER; Neal G. Gasser, LS-LSC

NON-CPSC ATTENDEE(S): Jesse Barrera, Tim Brainerd, Larry Brown, Chi Kay Cheung, John Conkling, Tom Dewille, John Rogers, Steve Shaffer, Joohn Stringer, Sally Wilson, and Gerry Wingard. Absent from the meeting: Richard Tarr, DOT

SUMMARY OF MEETING:

The meeting was called to order at 2:10 pm on November 5, 2004 by the Committee Chairman.

1. Review of Agenda

The newest member to the Committee was introduced, Sally Wilson from Fireworks Over America.

The Committee Chairman reviewed the agenda for the meeting. He indicated that testing of certain reloadable and mine/shell devices would take place on Saturday, November 6th at Luna Tech in Owens Cross, AL. The Committee will test a number of reloadable devices on the market to determine if the tubes in the kits can withstand the explosion of a shell in the tube.

2. Review of Previous Minutes

Committee Chairman noted that the description of the 2nd test on page four of the previous meeting minutes are incomplete. A sentence should be added, which states "The tube separated from the base, but the tube did not rupture." A question was also raised about the reference at the bottom of page 3 indicating that the Committee will test reloadable shells to determine the force

associated with plastic vs. paper shells. The testing did not take place at this meeting. It was decided that the Committee will look for samples of plastic and paper shells and that testing will be performed at a future meeting.

A motion was made to accept the minutes of the previous meeting with the above change, and the motion was seconded. The motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

3. Report from September 29, 2004 Board of Directors' Meeting

The Committee Chairman reviewed the memorandum dated September 17, 2004 regarding the Standards Committee's recommendations to the AFSL Board as well as the Board's decisions on those recommendations.

Recommendation # 1 – Definition of 2 Meter Distance Limit for Specialty Effects.

The original language approved by the Board on this issue stated "No effect propelled from a specialty item may travel a distance greater than 2 meters in any direction." The Committee recommended the language of the requirement be modified to state "No effect propelled from a specialty item may travel an initial distance in the air greater than 2 meters in any direction."

The Board unanimously adopted the Committee's above recommended modification.

Recommendation # 2 – Break Charges in Roman Candle Inserts.

The Committee recommended that the Board approve an amendment to the Standards for Roman Candles, which states "Roman Candles must not contain components or inserts with a break charge intended to expel stars or other burning materials."

The Board did not take action on this recommendation. The Board requested additional information on injuries involving Roman Candles, and specifically on injuries involving Roman Candles with components or inserts with a break charge.

Recommendation # 3 – Standard for Reloadable Tube Aerial Shell Devices – Shell Color and Shape.

The Committee recommended the Board approve a modification to the language in the standard to read "The shell exterior must be a single uniform color material, such as brown Kraft paper type or other uniform single color finish, without any design on the exterior of the shell."

The Board unanimously adopted the Committee's above recommended modification.

Recommendation # 4 – 20 Gram Limit on Lift Charge.

The Committee recommended that the Board approve an amendment to the Standard for Reloadable Tube Aerial Shells, which states "Section 2-1.8.4 – The maximum quantity of lift

charge in any shell shall not exceed 20 grams.”

The Board unanimously adopted the Committee’s above recommended modification.

Recommendation # 5 – Clay Plugs Inside Reloadable Shells.

The Committee recommended the Board approve on an emergency basis a modification to section 2-1.8 of the Standard for Reloadable Tube Aerial Shell Devices, which states “Shells must not contain pressed clay plugs or separators, or any other hard internal components capable of acting as shrapnel when the shell burst.”

The Board unanimously adopted the Committee’s above recommended modification, which was implemented on October 15, 2004.

Recommendation # 6 – Orienting Loop on Reloadable Shells

The Committee recommended the Board approve a modification to section 2-1.8.11 to state “Each shell must include an orienting loop that is securely attached to the top of the shell adequate to maintain correct shell orientation and fuse attachment. The use of a shell wrapper or other means of securely maintaining correct shell orientation is also permitted. Tape by itself is not sufficient to meet this requirement.”

The Board had a question on how the word “adequate” would be interpreted. An interim test using an 8 oz. weight will be implemented by the test lab.

4. Standard for Reloadable Tube Aerial Shell Devices

(A) Review of products to determine compliance with new shell designs.

The Committee reviewed several different reloadable shell designs that had been submitted for evaluation by the test lab. The review was to determine if the shapes and designs were in compliance with recently established limits on shell design, artwork, and graphics.

A motion was made and seconded, to recommend that AFSL send guidance to members outlining characteristics regarding shell design, artwork, and graphics that would comply with recently established standards.

“Acceptable shell designs include the following:

- (1) A cylindrical shape with a flat upper surface. The propellant container must be of equal or smaller diameter than the cylinder.
- (2) A spherical shape with the propellant container of equal or smaller diameter than the sphere.
- (3) Multiple spheres, or a combination of spheres or cylinders, one on top of the other, with the propellant container of equal or smaller diameter than the component it is attached to.

Note: A design in which multiple small spheres sit on top of a canister shell would not be acceptable.”

The above motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

Regarding shell colors, a motion was made and seconded, to include in the guidance memo sent to AFSL members the following:

“Shells must be of a uniform color, except that the top of the cylinder and bottom of the propellant container may also be brown paper.”

The above motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

The Committee also reviewed a reloadable device, in which the cylindrical shell, when placed in the tube, extended above the top of the tube. After discussion, a motion was made and seconded, to amend the Standard for Reloadable Tube Aerial Shells (the Committee Chairman will determine the exact location of the amendment) to state:

“No shell in a kit shall extend above the top of the launch tube when loaded for firing.”
The Committee felt this amendment was needed because the protection provided to the consumer in the event of a catastrophic failure or malfunction while the shell is in the launch tube is diminished when the launch tube does not completely conceal the shell.

The above motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

(B) Requirements for launcher tube integrity test.

As a follow-up to testing performed by the Committee at its last meeting, samples of a variety of reloadable kits on the market were obtained. Testing to evaluate the integrity of the tubes in these kits was conducted on November 6, 2004 at Luna Tech in Owens Cross, AL.

After discussing the results of testing performed at this and the last Committee meetings, the Committee felt the Standard needs to be amended to include a test for launch tube integrity. A motion was made and seconded, to amend the Standard for Reloadable Tube Aerial Shells (the Committee Chairman will determine the exact location of the amendment) to state:

“The tube, including its base, packed in a reloadable shell kit must be capable of withstanding the explosion of any shell in the kit, without fragmenting, when the shell is inserted in the tube upside down and ignited.”

The above motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

5. Standard for Comets, Mines, and Shells

(A) Hard discs in multiple tube mine and shell devices

The Committee fired two multiple tube devices to determine if they contained clay plugs that could injure bystanders as the plugs fall to the ground. The first device, a 16 shot cake, did not appear to have clay plugs. The second device, a 33 shot cake, did contain clay plugs, one of which hit the Committee Chairman in the shoulder.

After discussing the issue, a motion was made and seconded, to amend the Standard for Comets, Mines, and Shells to state:

“Insert tubes with break charges in mine/shell devices shall not contain pressed clay plugs, or separators, or any other hard internal components capable of acting as a projectile when the insert bursts.”

The above motion was unanimously approved by the committee, and the recommendation will be sent to the board for approval.

(B) Devices containing multiple 500 gram devices requiring connection by consumers.

The Committee reviewed an inert device that was submitted by a member for consideration for testing under the AFSL program. The retail package includes 4 multiple shot devices along with fusing to connect the items together. The Committee felt this was not a concept they wished to endorse.

To address this issue, a motion was made and seconded to create an amendment to Chapter 2 of the Standard for Combination Items, the Standard for Comets, Mines, and Shells, and the Standard for Fountains to state:

“Devices subject to this Standard shall contain one ignition fuse. Additional fuses, points of ignition, openings for fuse insertion, or points for ignition transfer are not permitted.”

One committee member opposed the motion. All others approved the motion. The recommendation will be sent to the board for approval.

6. Reports in Aerial Devices

The Standards Committee was scheduled to continue its efforts to develop a test procedure to distinguish a “report” from a “break charge” in aerial devices.

This issue was tabled until the next Committee meeting.

A subcommittee of John Conkling, Neal Gasser, John Rogers, and Jim Joholske will discuss this issue prior to the next Standards Committee meeting.

7. Miscellaneous/Emerging Hazards

John Rogers asked the Committee for guidance on whether two devices would fall under the definition of a Specialty Item. One device did, while the second device was not considered a Specialty Item.

8. Adjourn

The meeting was adjourned at 6:50 pm on November 6, 2004.