

US Consumer Product Safety Commission Log of Meeting

Subject: Portable Fireplaces

Date: May 22, 2018

Location: Teleconference

Prepared By: Scott Ayers (sayers@cpsc.gov, 301-987-2030), May 22, 2018

CPSC Attendees: Scott Ayers and Kristen Talcott

Non-CPSC Attendees:

Please contact Jarrod Kuhn of Sterno (JKuhn@SternoProducts.com, 951-248-4188) for a list of attendees.

Summary of Meeting:

Please contact Jarrod Kuhn of Sterno (JKuhn@SternoProducts.com, 951-248-4188) for specific meeting information.

- Discussion of Health Canada comments on liquid accumulation
 - Comments:

I have added some wording to our Google Doc draft document regarding a different perspective on the pouring test. This wording was briefly presented during the last telecon.

For those of you who were not able to join us, below is a short summary of the rationale for this different perspective. The actual wording was added in section 4.1.2 and section 5.2 of the document.

This different perspective is put forward to address two concerns:

A small amount of fuel “disappearing” may not be interpreted as misuse:

From a Health Canada perspective, if a consumer pours fuel in an opening and the fuel goes away, without any additional feedback to the consumer (such as not leaking out of the vessel), a highly foreseeable reaction to such a situation would be to add more fuel until the fill line is reached. As such, Health Canada is of the opinion that a small amount of fuel “disappearing” may not be interpreted as misuse.

Potential for accumulation of fuel in a void space somewhere within the device:

The current wording of the pouring test allows for fuel to accumulate in a location within the device. The location where fuel could accumulate may not be a recommended fuel burning area. In the opinion of Health Canada, this presents an unnecessary potential hazard given the nature of the product.

- Result:

Scott and JF talked offline and agree that in there is not a more elegant way of discouraging the pouring of flammable liquids, that a large amount (2 or 3 times greater than the maximum fill amount) should be poured and active feedback is needed. The preferred active feedback is for

fuel to leak out, the other option is for fuel to disappear. The group agreed to proceed with the leak out.

- Review of open items:
 - Further discussion with Volker needed:
 - "Fuel surface" vs. "refueling area" ... consider explaining how the flame apart from the fuel surface works ... raises question of whether this excludes wicks
 - Scope question as it relates to products using wicks
 - Question as to distance between flame/refueling points (3"?)
 - Increase to 6in and poll entire task group
 - Add provisions for separate fill port with enclosed refilling provisions
 - Calculation questions related to oxygen consumption and allowable amounts
 - Back of the envelope calculations show that 450 g of ethanol, which is generally acceptable to burn indoors, would reduce the oxygen concentration to 18 V%, so use this as the pass/fail criterion
 - "Water" vs. "fuel" as a reference... comment made that expanding on this subject could be made in the "Safety Hazard" section.
 - Complete as part of administrative clean up at the end of the process
 - Questions Jarrod will email testing labs:
 - Question about "reasonably sealed" and whether that's the best term to use or requires definition; related to test room/ indoor usage test.
 - Intervals of time for samples; related to indoor usage test
- Bob Moss's comments
 - Section 3.2 your definition of a candle goes beyond the definition of a candle in the candle fire safety standard. Specifically you include "or viscous combustible liquid not to exceed 15 ounces". You may want to consider leaving this off the definition of a candle and creating a new definition for this type of material. Since you say viscous liquid I get the impression that it is not an "oil candle" but you are stating that it contains a wick.
 - We will use the F15.45 definition of candles
 - Section 5.3.3.2 this mentions sealing the room. I am getting the impression you want an air tight room to conduct the testing. If there are no air exchanges it may be possible to "calculate" the oxygen concentration at the end of the test due to combustion and the weight of the fuel consumed. That said, if you are closing a door to seal the room do you need to use plastic sheeting around the door and some type of tape to ensure no air leakage or do you want to specify a maximum allowable air exchange rate?
 - Jarrod will reach out to UL for specifics on room tightness
 - Oxygen consumption can be more complex for blended combustibles fuels
 - Section 5.3.3.3 last sentence it says samples can be continuous or measured at discrete time intervals no more than once every 5 minutes. I would think you would want to specify a minimum sampling time such as sample at a minimum every 5 minutes. Are you concerned you may get too much data if you sample more frequently?
 - Jarrod will reach out to UL for specifics on sampling
 - For sections 5.3.3.5 and 5.3.3.6 can you use direct gas measuring devices? I know that Bacharach makes a 4 gas meter and has sensors for oxygen and CO so I am guessing something like that would be acceptable? Without mentioning the

manufacture perhaps noting that a direct reading gas meter can be used to monitor the levels of O₂ and CO in the test chamber?

- Will add a note stating that direct reading gas meters are acceptable
- In 5.3.4.1 there is a 15C operating range, should it be tighter than that? For candle testing it is only a 10°C range
 - Jarrod will reach out to UL for specifics on room temperature and RH
- Section 5.3.4.7 the part you have in Blue seems reasonable – not to enter the room and to monitor when the device stops burning using temperature or other suitable devices.
 - Corrected
- Section 6.1.9.3.1 your conversions are off by a factor of 10. 5 mm equals 0.2 inches not 0.02 inches and 2.5 mm equals .1 inch not .01 inch
 - Corrected
- The next meeting will be Tuesday June 19, 2018 from 12pm to 2pm EDT.