



U.S. Department
of Transportation

**Pipeline and Hazardous
Materials Safety
Administration**

1200 New Jersey Avenue, SE
Washington, DC 20590

JUN 25 2019

Robert Foti
Pyromanager Co. Ltd
20C Woodbury Court
10 Parkvale Drive
Discovery Bay
Hong Kong, China

Reference No. 18-0135

Dear Mr. Foti:

This letter is in response to your September 17, 2018, email requesting clarification of the Hazardous Materials Regulations (HMR; 49 CFR Parts 171-180) applicable to the requirements for firework design.

We have paraphrased and answered your questions as follows:

- Q1. You ask if the Pipeline and Hazardous Materials Safety Administration (PHMSA) requires the 1:3 firework base-to-height ratio for “UN0336, Fireworks, 1.4G.”
- A1. The definition of a “consumer firework” in § 173.59 of the HMR states that the firework must comply with any limits or requirements of the American Pyrotechnic Association’s (APA) Standard 87-1, which PHMSA incorporates by reference in § 171.7. Paragraph 3.6.2.1 of APA Standard 87-1 states, “The minimum horizontal dimension or the diameter of the base must be equal to at least 1/3 the height of the device (excluding any protruding fuse) unless the device remains upright when subjected to a tilt of 12 [degrees] from the horizontal.” Therefore, unless the device remains upright when subjected to a tilt of 12 degrees from the horizontal, a 1:3 base-to-height ratio is required to meet the HMR’s definition of a consumer firework.
- Q2. You ask if space is required between tubes for “UN0431, Articles, Pyrotechnic, 1.4G” mine and shell devices.
- A2. The tubes of “UN0431, Articles, Pyrotechnic, 1.4G” mine and shell devices are not required to be separated from each other. Section 3, Note 2 of the APA standard 87-1 exempts UN0431, Articles, Pyrotechnic, 1.4G from the construction requirements of the

Consumer Product Safety Commission (CPSC) for consumer fireworks. Additionally, paragraph 3.8.9 indicates that Articles, Pyrotechnic are “evaluated based on weight of pyrotechnic composition in the individual article and compared to the allowable weights for the corresponding category of 1.4G consumer fireworks.”

I hope this information is helpful. Please contact us if we can be of further assistance.

Sincerely,

A handwritten signature in black ink that reads "T. Glenn Foster". The signature is written in a cursive style with a prominent flourish at the end.

T. Glenn Foster
Chief, Regulatory Review and Reinvention
Standards and Rulemaking Division

Wolcote
18-0135

Inter Request
Fireworks Approval Inquiry

Pollack, Arthur (PHMSA)

From: Maxey, Vallary (PHMSA)
Sent: Tuesday, October 02, 2018 11:31 AM
To: Robert Foti
Cc: Gasser, Neal (PHMSA); Singh, Harpreet (PHMSA); Pollack, Arthur (PHMSA)
Subject: FW: Is 1:3 base to height ratio required by PHMSA?

Robert,

I sent your questions to PHMSA Standards for an interpretation response. You will hear back from PHMSA regarding your questions below.

Let me know if you have any additional questions. Thanks.

Regards,

Vallary S. Maxey
U.S. Department of Transportation/PHMSA
Approvals and Permits
1200 New Jersey Avenue, SE
Washington, DC 20590
email: vallary.maxey@dot.gov
ph: 202-366-4511

-----Original Message-----

From: Robert Foti [mailto:fca@pyromanager.com]
Sent: Thursday, September 20, 2018 3:08 AM
To: Maxey, Vallary (PHMSA) <Vallary.Maxey@dot.gov>
Cc: Gasser, Neal (PHMSA) <neal.gasser@dot.gov>
Subject: Re: Is 1:3 base to height ratio required by PHMSA?

Hi Vallary

Are you able to confirm if 1:3 ratio is required by PHMSA for 1.4G UN0336 fireworks?

Cheers

Robert

Sent from my iPhone

> On 18 Sep 2018, at 04:22, Maxey, Vallary (PHMSA) <Vallary.Maxey@dot.gov> wrote:

>

>

> Hi Robert,

>

> Nice to see you last week in Wichita..

>

> In your question can you clarify if you are referring to 1.3G or 1.4G, as you mentioned CPSC. CPSC regulates UN0336 1.4G Consumer Fireworks not 1.3G.

> Thanks.

>

> Regards,

> Vallary S. Maxey

>

> -----Original Message-----

> From: Robert Foti [mailto:fca@pyromanager.com]

> Sent: Monday, September 17, 2018 11:58 PM

> To: Maxey, Vallary (PHMSA) <Vallary.Maxey@dot.gov>; Gasser, Neal (PHMSA) <neal.gasser@dot.gov>

> Subject: Is 1:3 base to height ratio required by PHMSA?

>

> Hi Vallary and Neal

>

> I hope this email finds you both well, and nice seeing you last week Vallary.

>

> I have a customer who asked whether the 1:3 base to height ratio is required by PHMSA? I thought not but wanted to double check. I advised them it is required by CPSC.

>

> On an unrelated note, is space between tubes required for UN0431 mine and shell devices?

>

> Cheers

> Robert

>

> Sent from my iPhone