



July 17, 2017

VIA ELECTRONIC SUBMISSION

Office of the Secretary  
U.S. Consumer Product Safety Commission  
Room 502  
4330 East-West Highway  
Bethesda, MD 20814

**Re: Amendments to Fireworks Regulations (CPSC 2006-0034), 82 Fed. Reg. 9012 (February 2, 2017).**

Dear Madam or Sir:

On February 2, 2017, the Consumer Product Safety Commission (CPSC) published a proposed rule titled: *Amendments to Fireworks Regulations*.<sup>1</sup> The U.S. Small Business Administration's Office of Advocacy (Advocacy) applauds CPSC's efforts to make fireworks safer for consumers, but believes that CPSC's Initial Regulatory Flexibility Analysis (IRFA) is inadequate in assessing the costs to small business. Advocacy is concerned that CPSC improperly certifies the rule without a factual basis. Advocacy recommends that CPSC publish for public comment either a supplemental IRFA that properly assesses the costs to small businesses and includes alternatives to the rule with cost data and explanations as to why the alternatives were not selected; or if the Commission determines the rule will not have a significant impact on a substantial number of small entities, certify the rule using a proper factual basis and certification language.

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<sup>1</sup> Amendments to Fireworks Regulations, 82 Fed. Reg. 9012 (February 2, 2017). (to be codified at 16 CFR 1500 and 1507).



## **The Office of Advocacy**

Congress established Advocacy under Pub. L. 94-305 to represent the views of small entities before Federal agencies and Congress. Advocacy is an independent office within the U.S. Small Business Administration (SBA); as such the views expressed by Advocacy do not necessarily reflect the views of the SBA or the Administration. The Regulatory Flexibility Act (RFA),<sup>2</sup> as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA),<sup>3</sup> gives small entities a voice in the rulemaking process. For all rules that are expected to have a significant economic impact on a substantial number of small entities, federal agencies are required by the RFA to assess the impact of the proposed rule on small entities and to consider less burdensome alternatives.

The Small Business Jobs Act of 2010 requires agencies to give every appropriate consideration to comments provided by Advocacy.<sup>4</sup> The agency must include, in any explanation or discussion accompanying the final rule's publication in the Federal Register, the agency's response to these written comments submitted by Advocacy on the proposed rule, unless the agency certifies that the public interest is not served by doing so.<sup>5</sup>

## **Background**

The Federal Hazardous Substances Act<sup>6</sup> (FHSA) authorizes CPSC to regulate hazardous substances such as fireworks devices. CPSC previously added provisions to the fireworks regulations which are codified in 16 C.F.R. parts 1500 and 1507. These provisions include labeling requirements, prohibitions of chemicals, performance requirements, and various bans on pyrotechnic composition levels. In 2006, CPSC issued an advanced notice of proposed rulemaking (ANPRM) to explore revisions to the rule that would address fireworks related injuries.

In September 2016, CPSC issued a proposed interpretive rule regarding the method of determining whether a firework device is "intended to product audible effects."<sup>7</sup> The public comments received from that interpretive rule were considered in drafting the current proposed rule. In 2015 and 2016, CPSC reviewed its fireworks regulations to identify revisions that would make the rules more effective. This proposed rule is the result of that review.<sup>8</sup>

Under the FHSA<sup>9</sup>, the Commission may create design requirements for a "hazardous substance" only after a four-part finding. These findings include the following: (1) In spite of cautionary labeling requirements, the nature of the hazard is such that public health and safety is only adequately protected by creating design and performance standards; (2) compliance with a voluntary standard is unlikely and/or the standard does not adequately address the risk; (3) the

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<sup>2</sup> 5 U.S.C. §601 et seq.

<sup>3</sup> Pub. L. 104-121, Title II, 110 Stat. 857 (1996) (codified in various sections of 5 U.S.C. §601 et seq.).

<sup>4</sup> Small Business Jobs Act of 2010 (PL. 111-240) §1601.

<sup>5</sup> *Id.*

<sup>6</sup> 15 U.S.C. §1262.

<sup>7</sup> 82 Fed. Reg. 9012, 9014.

<sup>8</sup> *Id.* at 9012.

<sup>9</sup> *Id.* at 9013.

benefits expected from the regulation bear a reasonable relationship to the costs; (4) the regulation imposes the least burdensome requirement to reduce the risk of injury.<sup>10</sup> In the proposed rule, the Commission discusses each of these factors, concluding that the proposed rule is necessary to address the injuries associated with firework devices.<sup>11</sup>

The Commission asserts that the misuse of devices “whose audible effect is produced by a charge of more than two grains of pyrotechnic composition” has been the leading cause of most fireworks related injuries and deaths.<sup>12</sup> CPSC further states that there is a correlation between the degree of injury and the explosive power of the firework.<sup>13</sup> Currently within the industry, metallic “fuel” is used in devices that are intended to “produce an audible effect.”<sup>14</sup> Such devices have a charge of more than two grains of pyrotechnic composition.

The Commission notes that in a 2015 Fireworks Annual Report, injuries resulting from devices that are subject to a two-grain limit on pyrotechnic composition can be severe or result in death. The Commission stated that nine of eleven deaths relating to fireworks in 2015, involved devices subject to this limit, and that over the course of one month, an estimated 1,200 injuries that occurred, also involved these types of devices.<sup>15</sup> Of these estimated injuries, 100 involved children under the age of four.<sup>16</sup> The incidents included deaths resulting from mortar tubes held by consumers, burns requiring a one-month hospitalization after fragments fell in bystander’s laps, and other injuries.<sup>17</sup>

The provisions of the proposed rule include the following<sup>18</sup>:

- Allows trace amounts of prohibited chemicals to align with voluntary standards, compliance rates, and other federal standards.
- Limits devices that contain metallic “fuel” less than 100 mesh in particle size in the burst charge to two grains of pyrotechnic composition, and adopts a test method for testing whether a particular device is over the two grain limit. This requirement eliminates the previous reference to “audible effects”<sup>19</sup> and instead states the aforementioned criteria directly. This requirement also changes the previously used method of determining audible effects from a sound test to using an x-ray fluorescence (XRF) laser to determine whether a product contains metallic “fuel”.<sup>20</sup> The requirement ultimately aims to remove metallic “fuel” from the burst charge and instead replace it with black powder.<sup>21</sup>

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<sup>10</sup> Id.

<sup>11</sup> Id. at 9016.

<sup>12</sup> Id. at 9014.

<sup>13</sup> Id.

<sup>14</sup> Id. at 9015.

<sup>15</sup> Id. at 9014 (citing YONGLING TU, U.S. CONSUMER PRODUCT SAFETY COMM’N, DIRECTORATE FOR EPIDEMIOLOGY, DIVISION OF HAZARD ANALYSIS, INCIDENT FIREWORKS-RELATED DEATHS AND EMERGENCY DEPARTMENT-TREATED INJURIES DURING 2015, (June 2016), *available at* [https://www.cpsc.gov/Global/Research-and-Statistics/Injury-Statistics/Fuel-Lighters-and-Fireworks/Fireworks\\_Report\\_2015FINALCLEARED.pdf](https://www.cpsc.gov/Global/Research-and-Statistics/Injury-Statistics/Fuel-Lighters-and-Fireworks/Fireworks_Report_2015FINALCLEARED.pdf)).

<sup>16</sup> Id.

<sup>17</sup> Id.

<sup>18</sup> 82 Fed. Reg. 9012, 9027.

<sup>19</sup> Id.

<sup>20</sup> Id. at 9017.

<sup>21</sup> Id. at 9027.

- Adds hexachlorobenzene (HCB), lead tetroxide, and other lead compounds to the list of prohibited chemicals.
- Adopts a test method for evaluating compliance with fuse requirements in order to reduce side ignition.
- Requires bases to remain attached to firework devices to prevent tipping.
- Prohibits devices from projecting fragments while functioning.
- Clarifies and/or defines various elements of the existing regulations.

### **Small Businesses are Concerned about the Impacts of this Proposed Rule**

The majority of fireworks are imported into the U.S., with very few U.S.-based companies actually manufacturing their own fireworks.<sup>22</sup> In the proposed rule, the Commission relies on American Fireworks Standards Laboratory (AFSL) membership data to estimate the number of importers in the U.S. market. According to the Commission, AFSL currently has 165 fireworks importers on its membership list, of which at least 121 (73 percent) are considered small businesses.<sup>23</sup> AFSL's membership represents 85 to 90 percent of the U.S. market, suggesting a total market size of 183 to 194 importers. This means that the proportion and number of small businesses impacted by the rule may be even higher than estimated above.<sup>24</sup> Depending on the magnitude of cost impacts, the number of affected small firms may be substantial.

Advocacy spoke with several small fireworks importers, and visited one firm to learn about the impacts this proposed rule would have on their businesses. Due to the unique nature of the fireworks industry, the majority of firms make most if not all of their profits during the months immediately preceding the Fourth of July holiday. Such businesses range from small pop-up tents to actual professional store-fronts. In order to prepare for the high demand of product, companies often purchase their stock of fireworks from China up to one year in advance. The products are sometimes tested before shipment, but more often than not, they are shipped directly to the small businesses that are then subject to Commission testing once the product is in the U.S. If a product does not comply with testing, the company must incur the costs to destroy the product, and will not be reimbursed by the manufacturer for any defects. Some businesses indicated that they approached the Commission about selling the failed product on the commercial market rather than the consumer market but were told that they could not do so, and that it had to be destroyed. They indicated an inconsistency in Commission field operations, and that the information they were given varied depending on the employee.

Most if not all of the small businesses that Advocacy spoke with said that their biggest concern was with the portion of the rule relating to limitations on the amount of metallic "fuel" powder allowed in the burst charge, and specifically with the methodology for testing this limitation. The Commission's proposed rule would allow for a margin of less than one percent metallic "fuel" in the burst charge and would test for this limitation using XRF technology.<sup>25</sup> CPSC is proposing that fireworks only contain black powder and not metallic "fuel" powder in the burst charge.<sup>26</sup>

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<sup>22</sup> Id.

<sup>23</sup> Id. at 9026.

<sup>24</sup> Id.

<sup>25</sup> Id. at 9015.

<sup>26</sup> Id. at 9027.

These businesses indicated that the new proposed threshold is simply not feasible, and that it will substantially alter the product in a way that makes it unmarketable. The businesses indicated that at the one percent level, using XRF technology, the CPSC product failure rate increases from the current rate of 17 percent to a rate of 84 percent. The businesses are proposing that CPSC increase this level to at least three to four percent.

The majority of the businesses were in agreement with the Commission that the current testing method, the sound/ear test, is both subjective and inaccurate at determining whether a case of fireworks is compliant with the “audible effects”<sup>27</sup> standard. Many businesses agreed that the XRF was a more accurate method for determining pyrotechnic composition; however they also indicated that the new testing method would make it impossible for them to be able to test their own products for compliance, as purchasing one of the XRF devices is cost prohibitive to small businesses. They suggested as a compromise using a sound meter machine that would accurately test “audible effects” but would not produce such a high failure rate.

They stated that with the possibility of a much higher failure rate, combined with the inability to cost-effectively test their own products for compliance, businesses will be forced to stop purchasing these products due to the risk that the products will fail, thus creating a loss for the business. Many businesses are also worried about the time sensitive nature of their sales, and the delays that may be incurred in shipment and ability to sell these products due to the new testing methods.

More than one business indicated that not having metallic “fuel” in the burst charge will not have the amount of heat needed to properly ignite the stars within the firework to produce the visual effects that the consumer seeks. Furthermore, the same businesses stated that consumers want both a visual and audible component to their products, as it sensationalizes the experience of the fireworks. They indicated that without these two components, their sales will decrease dramatically, as consumers will try to find non-compliant products instead due to the superiority of the visual effects. A few businesses indicated that they would have to reconsider whether to sell the class of fireworks being regulated, as the loss they would incur if the product were to fail is too high to justify the benefits.

Advocacy also spoke directly with the Commission regarding its proposed rule in an effort to better understand the new testing methodology and justifications for the requirements the Commission set. In speaking with CPSC, it is the Commission’s belief that using all black powder in the burst charge will produce the same visual effect as a metallic “fuel”, but with far less risk of injury. The Commission indicated that the higher the level of metallic “fuel” composition in the break charge, the higher the increase in energy, and thus the higher the risk for injury.

The Commission also demonstrated for Advocacy the ease with which the XRF machine can be used to determine the chemical composition of the product. The Commission stated that the devices can cost on average \$35,000.

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<sup>27</sup> Id.

**The Proposed Rule will Have a Significant Economic Impact on a Substantial Number of Small Businesses; CPSC Should Revise its Economic Analysis and Consider Feasible Alternatives to Minimize the Impact.**

Advocacy once again applauds CPSC's effort to make these products safer for consumers, but urges the Commission to publish for notice and comment a supplemental RFA analysis. If the Commission wishes to certify that the rule will not have a significant impact on a substantial number of small businesses, it should adopt a less burdensome approach and then so certify using a proper factual basis. Advocacy makes the following additional recommendations.

**(1) Certification Requires a Factual Basis**

Currently in its RFA analysis, CPSC alludes to a certification that the rule will not have a significant economic impact on a substantial number of small entities in several sections, by using certification language in place of an IRFA and stating that there will not be a cost of compliance to small business. Advocacy urges CPSC to first acquire enough information that would provide a factual basis for certification including cost analysis under the RFA<sup>28</sup>, and only after it makes this determination use certification language that is consistent with the statute. Finally, Advocacy urges CPSC to publish such subsequent certification for public notice and comment so that the public has an opportunity to adequately respond to CPSC's determination.

**(2) CPSC Should Include Relevant Costs of Compliance**

Advocacy spoke with several small businesses who indicated that the proposed rule will have such a high cost of compliance, it could cause them to stop selling the class of fireworks being regulated altogether. In its RFA analysis, CPSC does not include information regarding the cost of compliance, and instead in more than one instance states that it does not have this information and is seeking public comment on the issue.<sup>29</sup> In one case, the Commission even suggests that the new requirements will result in a "theoretical reduction in burden for the fireworks industry."<sup>30</sup> The Commission's conclusions about cost impacts differ significantly from what Advocacy heard from the small entities with which it consulted. In addition, the Commission failed to include the relevant NAICS codes and revenue data for the industries likely to be impacted by the rule. Without this information, neither the Commission nor the commenting public can properly assess whether compliance costs will represent a significant proportion of regulated firms' annual revenues.

The Commission should therefore collect public comment on compliance costs and firm revenues, and subsequently publish these comments, with responses and relevant data in a supplemental RFA analysis, once again allowing for public comment. Without the aforementioned information, CPSC cannot make a proper determination of whether the proposed rule will have a significant economic impact on a substantial number of small entities, and therefore cannot comply with the requirements of the RFA.

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<sup>28</sup> 5 U.S.C. § 605 (b).

<sup>29</sup> *Id.* at 9024-9026.

<sup>30</sup> *Id.* at 9027.

### **(3) Consider and Analyze Significant Alternatives**

Advocacy heard from industry that the current proposed rule imposes stringent requirements that would significantly alert its product to the point of it no longer being marketable. This concern relates specifically to the one percent limit of metallic powder in the burst charge. Industry has indicated that with such a stringent requirement, the failure rate will increase dramatically, forcing some businesses to exit the market. Advocacy suggests that in order to conduct a thorough RFA analysis, CPSC provide proper data and/or testing on whether in fact the proposed limitations substantially alter the product, and whether there is an alternative level that would achieve the same goal and provide increased feasibility of compliance for small business. Industry has suggested a metallic powder allowance limit of three to four percent.

In its IRFA, CPSC provides an analysis of alternatives; however for each factor of the proposed rule the only alternative the Commission analyzes is taking no action. Under the RFA, CPSC has an obligation to consider feasible alternatives. Here, CPSC's alternative is not feasible as it does nothing to further the Agency's goal of reducing injury. The Commission should therefore consider feasible alternatives, and provide a cost analysis of the alternatives and an explanation as to why they were not chosen over the current proposed requirements.

Such alternatives may include the following:

- (a) allowing a higher percentage of metallic "fuel" in the burst charge;
- (b) better assistance with destruction of non-compliant products including consistency in destruction requirements, and assistance with costs associated with destruction;
- (c) ability to sell the product at a commercial level if it does not meet consumer standards;
- (d) exemptions for businesses who self-test using the approved methodology, or elect to pay for testing from a certified provider;
- (e) front-end testing at the manufacturer's point of sale in China, rather than the importer's point of sale so as to reduce the burden to U.S. small business importers;
- (f) testing products during non-peak sales seasons only so as not to substantially interfere with small businesses revenue;
- (g) requiring consumers to complete safety training courses and/or other requirements that are more punitive for misuse of the products;
- (h) using a sound meter rather than an XRF.

### **Conclusions and Recommendations**

The Commission's proposed rule will have a significant economic impact on a substantial number of small entities. Specifically, businesses will incur compliance costs of \$35,000 if they wish to purchase an XRF machine in order to test their products for compliance. The allowable level of metallic "fuel" in the burst charge may make the products unmarketable, and will result in a higher failure rate for products. Finally, the cost to destroy failed products will result in a significant loss of revenue to small businesses.

Advocacy recommends that CPSC publish for public comment either a supplemental IRFA that properly assesses the costs to small businesses and includes alternatives to the rule with cost data

and explanations as to why the alternatives were not selected; or if the Commission determines the rule will not have a significant impact on a substantial number of small entities, certify the rule using a proper factual basis and certification language.

Advocacy urges CPSC to give full consideration to the above issues and recommendations. If you have any questions or require additional information please contact me or Assistant Chief Counsel Prianka Sharma at (202) 205-6938 or by email at [prianka.sharma@sba.gov](mailto:prianka.sharma@sba.gov).

Sincerely,



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