March 31, 2014

Docket Operations
OSHA Directorate of Standards and Guidance
Room N-3609
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Re: **Docket No. OSHA-2013-0020**
Process Safety Management of Major Chemical Accidents
Request for Information

Dear Sir or Madam:

These comments are submitted on behalf of the American Pyrotechnics Association (APA)[1], in response to the Occupational Safety and Health Administration's (OSHA) Request for Information (RFI)[2] on Process Safety Management of Major Chemical Accidents. We are responding to some of the specific questions raised in the RFI as well as providing some additional information that may be helpful to OSHA as it reviews its policies and the Process Safety Management Standard (PSM).

Overview of Comments

The APA supports OSHA's continuing efforts to ensure a safe workplace and the prevention of accidents, particularly relating to highly hazardous chemicals and explosives. Safety is the number one priority of APA member companies. APA's comments will provide detailed information to OSHA demonstrating that the fireworks industry is pervasively and effectively regulated by numerous federal and state agencies as well as industry consensus codes and standards with regard to the manufacture, transportation, storage and use of fireworks, and the management of waste materials. As such, there is no demonstrable need to amend the current PSM standard as it relates to the fireworks industry.

We share OSHA's objective to prevent or minimize employee exposure to hazards associated with uncontrolled releases of highly hazardous chemicals and believe the PSM Standard is highly effective when the regulated community implements the procedures and practices PSM mandates. In the RFI, OSHA cites four recent accidents resulting in uncontrollable releases of highly hazardous chemicals. Three of the incidents were caused by facilities failing to properly implement PSM requirements; one incident involved a fertilizer facility that was not subject to PSM. Additionally, the RFI refers to an incident where an unqualified government contractor was hired to dispose of seized fireworks, and did so by dismantling

[1] The APA is the principal safety and trade association of the fireworks industry representing manufacturers, importers, distributors, retailers, suppliers and professional display companies. The APA has over 240 member companies. Along with their subsidiaries, APA's member companies are responsible for ninety (90) percent of the fireworks manufactured, imported, distributed and professionally displayed in the United States.
[2] 78 FR 73756. December 9, 2013.

them, apparently in preparation for disposal. It is the latter incident, in particular, that the APA will address in our comments; more specifically, the expansion of 1910.109 to cover dismantling and disposal of explosives, blasting agents and pyrotechnics.

Background on the APA and Regulation of the Fireworks Industry

The U.S. fireworks manufacturing sector is extremely small, comprised of only a couple dozen manufacturers making specialty devices. The vast majority of fireworks used in the United States are imported, primarily from China. All of our members are small businesses, the majority of which employ fewer than 40 full-time employees, and most are family owned, multi-generational companies.

The APA has a long-standing working relationship with OSHA as well as the other federal agencies that regulate the fireworks industry including the Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), the Consumer Product Safety Commission (CPSC) and the various branches of the U.S. Department of Transportation (DOT) including the Federal Aviation Administration (FAA), the Federal Motor Carrier Safety Administration (FMCSA), the Pipeline and Hazardous Materials Safety Administration (PHMSA) and the Transportation Security Administration (TSA). As a result of APA's strong commitment to industry safety, almost a decade ago, the APA partnered with OSHA through the agency's *Alliance Program* to raise awareness of OSHA's regulations and rulemakings and worker training. The APA developed guidance and access to training resources to help reduce and prevent accidents involving the manufacture, transport, storage, sale and handling of fireworks. Additionally, through the Alliance, APA prepared posters and pocket cards highlighting the top safety practices at fireworks display sites and consumer fireworks retail sales facilities. The APA also assisted OSHA in developing the agency's on-line Pyrotechnics Industry topic pages and produced a training video for OSHA inspectors
https://www.osha.gov/SLTC/pyrotechnic/index.html

The APA is also a prominent member of the National Fire Protection Association (NFPA) Technical Committee on Pyrotechnics (TC PYR), serving as a Principle member on the Committee since its formation more than four decades ago. There are three primary NFPA industry consensus codes that the fireworks industry strictly adheres to: (1) NFPA 1123, Code for Fireworks Display; (2) NFPA 1124, Code for the Manufacture, Transportation, Storage and Retail Sales of Fireworks; and (3) NFPA 1126, Standard for the Use of Pyrotechnics Before a Proximate Audience. These three industry consensus standards provide detailed guidance to the industry and local authorities having jurisdiction (AHJs), and more importantly, OSHA relies upon these standards for enforcement matters where the OSH Act is silent.

More specifically, OSHA currently regulates the fireworks industry by applying the NFPA 1124 industry consensus code. NFPA 1124 contains detailed guidance on the manufacture, transportation, storage and retail sales of fireworks. OSHA recognizes the NFPA standard in its Compliance Instructions.[3] Compliance officers enforce the standard by referencing NFPA codes in citations under 1910.109 (b)(1) as equivalent to the General Duty Clause.

Fireworks manufacturing facilities are more stringently regulated by OSHA under 1910.109 than other industries subject to PSM under 1910.119. In fact, 1910.109 regulations for explosives, blasting agents and pyrotechnics do not have a specified threshold quantity trigger. Accordingly, PSM applies to **all** manufacturing activities regardless of the amount of chemical composition involved. Whereas, 1910.119 is predicated upon the Appendix A list of Highly Hazardous Chemicals, and establishes specific threshold quantities per listed chemical which trigger the application of the PSM standard. Moreover, ATF expressly

[3] CPL 2.73 dated February 3, 1986, subsequently replaced by CPL 02-01-053 on October 27, 2011.

regulates fireworks manufacturing operations and the storage of commercial fireworks and explosives. ATF's regulations focus on preventing catastrophic results of explosions in fireworks manufacturing and storage. Among other things, ATF's regulations severely restrict the amount of explosive or pyrotechnic composition that may be used at any one time in a process building. No more than 500 pounds (227 kg) of pyrotechnic composition or explosives materials are permitted at one time in any fireworks mixing, processing, assembly or finishing area.[4] The chemical composition restrictions are even more restrictive when operations involve flash powder, limiting the process to no more than 10 pounds (4.5 kg).[5] ATF's chemical composition limits were established solely to prevent catastrophic incidents. And when coupled with the ATF table of distances prescribing distances to separate process buildings, storage magazines, inhabited buildings, public roadways, etc., from manufacturing operations, the regulations have been most effective. In fact, since the combined regulations have been in effect, fireworks manufacturing accidents have been extremely rare. Moreover, when industry accidents have occurred, they have not been catastrophic but rather, limited to the immediately affected area and loss of life has been prevented or minimized.

PSM Changes Under Consideration in the RFI

OSHA issued its Process Safety Management (PSM) RFI in response to Executive Order 13650, *Improving Chemical Facility Safety and Security*, to identify issues related to the modernization of its PSM standard and related standards. Of the enumerated seventeen subjects that the agency has identified as potential areas for rulemaking or policy changes, the APA wishes to comment on three of the enumerated topics:

- #11, The agency proposes to revise Paragraph (n) of the PSM Standard to require coordination of emergency planning with local emergency-response authorities. The APA concurs with this recommendation as we believe it is vital for first responders to be fully aware of the hazards presented at facilities that manufacture and /or store highly hazardous chemicals. APA members, particularly those involved in manufacturing and storage of commercial display fireworks, frequently invite the local fire authorities to their facilities so that they become familiar with the layout of the facility and the location of fireworks magazines. ATF requires that the local authority be notified when temporary storage operations occur, such as the staging of trucks for the busy Fourth of July season. We believe it is also a good exercise to remind the local emergency responders on the predicted behavior of a fire or incident involving highly hazardous chemicals or explosives. For example, you do not fight a fire involving commercial display fireworks but rather, secure the area and let the event happen.

- #12, OSHA is proposing to revise Paragraph (o) of the PSM Standard to require third-party compliance audits. Under the current PSM Standard, facilities are required to audit their PSM program every three years by at least one person knowledgeable in the process. However, OSHA believes an independent, experienced auditor could potentially provide the highest degree of objectivity. The APA believes that the current requirement for a self-audit should be preserved. The costs associated with hiring a consultant to perform the audit, every three years, would place an unnecessary economic burden on small employers, especially for the highly-specialized fireworks manufacturing industry. If OSHA wishes to pursue the third-party audit concept, then we

[4] 27 CFR 555.221 (b)
[5] 27 CFR 555.221 (c)

strongly recommend that the agency fund such audits as a service provided to small employers under OSHA's on-site consultation services offered to small businesses.

- #13, The agency is proposing to expand the requirements of 1910.109 to cover the dismantling and disposal of explosives, blasting agents, and pyrotechnics. This proposal was prompted by the accidental explosion in Waikele, Hawaii, that tragically killed five employees who were disposing of fireworks seized by the Federal Government. The accident occurred as a result of an inexperienced government contractor inappropriately dismantling fireworks in preparation for disposal. OSHA states that the U.S. Chemical Safety and Hazard Investigation Board's (CSB's) investigation of the accident determined that "gaps in federal regulations – specifically with regard to dismantling and disposal of explosives – contributed to the accident. This conclusion was collateral to the real cause of the problem: the failure to hire a qualified contractor to handle the materials and dispose of them properly – i.e., without attempting to dismantle the materials.

OSHA acknowledges that ATF exercises jurisdiction over many aspects of the explosives industry and seeks comments on whether expanding the scope of 1910.109 to cover dismantling and disposal of explosives, blasting agents and pyrotechnics would lead to increased worker protection and whether ATF's current regulations would make any revision to OSHA's regulations duplicative. As mentioned above, ATF stringently regulates the manufacturing of explosives, blasting agents, and pyrotechnics, including fireworks. The fireworks industry does not engage in the practice of dismantling fireworks or pyrotechnic articles for disposal purposes. Moreover, fireworks facilities are subject to EPA's Resource and Conservation and Recovery Act (RCRA) regulations regarding the accumulation of any hazardous or solid waste. APA members utilize competent and permitted hazardous waste disposal entities like Clean Harbors Environmental Services, Inc., and Safety Management Services, Inc., to properly and safely dispose of any hazardous materials.

The APA is not aware of any accident, other than the incident in Hawaii, where there were injuries or loss of life resulting from the dismantling or disposal of fireworks. Frankly, that is because this is not an activity that the regulated industry engages in, nor would APA advocate that industry engage in product disposal activities. The disposal of explosives, blasting agents and pyrotechnic materials is extremely complex and disposal techniques must, and should, vary based upon the unique chemical properties of the materials and should be properly assessed by an expert with knowledge to dispose of those materials appropriately and safely. Such disposal facilities should fully comply with EPA's RCRA standards for treatment, storage and disposal.[6] There is no single, one-size-fits-all, procedure for explosives disposal. Accordingly, APA members rely upon, and are encouraged to utilize, permitted hazardous waste disposal companies to properly dispose of their waste materials.

As a result of the Hawaii accident, the CSB directed the NFPA TC PYR to develop guidance regarding the safe disposal of fireworks. A task group, chaired by the APA, and comprised of federal regulatory representatives including personnel from ATF, CPSC, DOD, DOT, EPA, and OSHA, as well as state enforcement authorities and special experts, has been appointed to develop such guidance. Accordingly, we encourage OSHA to allow that process to move forward through completion and then consider embracing those industry consensus guidelines for fireworks disposal.

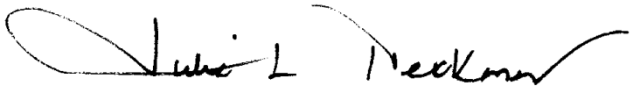
[6] 40 CFR Parts 264 and 265

Conclusion

The APA appreciates the opportunity to provide information related to the modernization of the PSM standard. As described in detail above, the fireworks industry is stringently regulated by numerous federal and state agencies, and industry consensus standards, and has a long history of safe manufacture, transport, storage and use. There is no demonstrable need to modify the current regulations set forth in 1910.109 for explosives, blasting agents, and pyrotechnics. Based upon the safety record of the industry, the existing regulations have proven to be highly effective at preventing catastrophic incidents in the fireworks industry when they are applied and enforced. Three of the four catastrophic incidents outlined in the RFI resulted from failure to properly implement PSM requirements. The tragic Hawaii explosion resulted from an inexperienced government contractor dismantling fireworks for disposal purposes, an activity that the APA and its members do not engage in, nor do we recommend such a practice.

We encourage OSHA to continue to participate in the NFPA TC PYR task group efforts to develop guidance on safe and appropriate disposal methods for seized fireworks as we recognize that this topic is a priority issue for state and local authorities. The APA will continue to lend its expertise toward the development of such guidance, although we strongly recommend that all fireworks disposal activities be handled solely by permitted RCRA compliant hazardous waste disposal entities, or by appropriate explosives experts at ATF and DOD for emergency seizures and destruction.

Respectfully submitted,



Julie L. Heckman
Executive Director