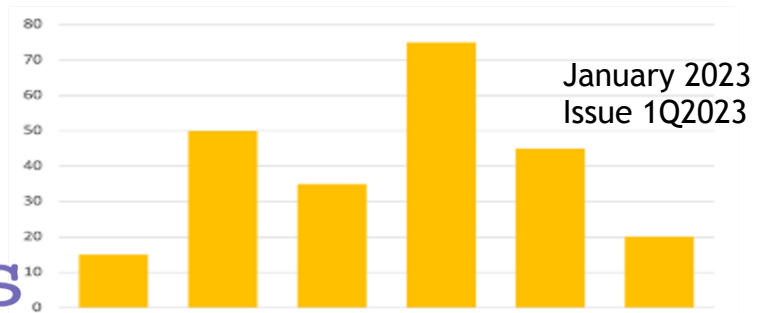




AFSL News



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AFSL Expands Training Program

By Jay Howell



In 2021, AFSL began meeting with State Fire Marshals and other fire services personnel to teach them how to dissect and analyze the contents of various fireworks devices so they could establish reasonable grounds (probable cause) to investigate the possible sale and storage

of illegal explosives being marketed as consumer fireworks, along with other potentially dangerous pyrotechnic devices that might violate their state laws and regulations. In addition to the state-level attendees, we are often joined by Bureau of Alcohol, Tobacco, Firearms, and Explosives (ATF) and Federal Bureau of Investigation (FBI) field personnel.

Fire Marshals are interested in ensuring the safety of buildings and their occupants by enforcing fire codes and regulations, conducting inspections, investigating fires, and providing fire safety education to the public. They also investigate causes of fires and determine if there are any violations of fire code or other laws.

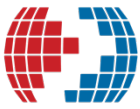
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AFSL Expands Training Program *continued*

Fire Marshals are also interested in consumer fireworks in terms of enforcing laws and regulations related to their use, as well as ensuring that they are being used safely to prevent fires and injuries. This can include enforcing age restrictions, ensuring that fireworks are only used in designated areas, and monitoring the sale and possession of fireworks to prevent illegal activity. In some cases, they may also provide education to the public on the safe use of consumer fireworks.

The American Fireworks Standards Laboratory (AFSL) is a non-profit organization that is dedicated to the safety of consumer fireworks. We are an independent testing laboratory that evaluates and tests consumer fireworks to ensure that they meet safety standards established by the American Pyrotechnics Association (APA) and the Consumer Product Safety Commission (CPSC). AFSL also provides training and education to the fireworks industry and to the public on the safe use of consumer fireworks.

Fire Marshals in Georgia and South Carolina have requested training and have been scheduled for 1st quarter of this year. We are budgeted to conduct another four training sessions in 2023, so if you think your State Fire Marshal might be interested in having us meet with their team, let us know. This training is provided at no cost to the state and serves to continue to build our relationship with federal law enforcement and those that regulate fireworks at the state level.

**CTPAT**[™]
YOUR SUPPLY CHAIN'S STRONGEST LINK.

New CTPAT Requirements

By Chuck Rogers

Customs-Trade Partnership Against Terrorism (CTPAT) is a U.S. Customs and Border Protection (CBP) voluntary trade partnership program in which CBP and members of the trade community work together to secure and facilitate the movement of legitimate international trade. The program focuses on improving supply chain security, beginning at the point of origin through a point of distribution to the destination. CTPAT member companies agree to implement certain security procedures throughout their supply chains to protect those supply chains from terrorist infiltration and other illegal activities that threaten the security of the United States. CTPAT partners who undertake these protections receive facilitated processing by CBP.

As of January 2023, members of CBP's CTPAT Security program are required - rather than merely encouraged - to have a documented social compliance program in place. At a minimum, the program is required to address how the partner ensures that goods imported into the United States were not mined, produced, or manufactured, wholly or in part, with forced, imprisoned, or indentured child labor.

In addition, on August 1, 2022, CBP announced six new requirements related to forced labor that members of the CTPAT Trade Compliance program, often referred to as the Trusted Trader program will be required to comply with. Existing Trade Compliance program members will have until August 1, 2023 to implement the new forced labor requirements. New applicants must meet the new requirements at the time of application.

The new forced labor requirements for CTPAT Trade Compliance partners are as follows:

1. **Risk-based mapping.** Partners must conduct risk-based mapping that outlines supply chains in their entirety, including regions and suppliers that they feel pose the most risk for forced labor. Importers are required to determine within their organization what imports are considered high risk to their business model and should take into consideration information that CBP provides publicly on their website www.cbp.gov. CBP may request unredacted proof of supply chain mapping regarding a particular supply chain at any time.

New CTPAT Requirements

continued

2. **Code of Conduct.** Partners must create a code of conduct statement representing their position against the use of forced labor within any part of their supply chain. Partners must have policies and procedures that operationalize the Code of Conduct, as well as evidence of those policies' implementation. The Code of Conduct statement must be included in the company's social compliance program that focuses on forced labor, as outlined in the CTPAT Minimum Security Criteria. Partners are required to upload the Code of Conduct statement to the CTPAT online portal and publish it publicly.
3. **Evidence of Implementation.** Partners must provide CBP with evidence of the implementation of their social compliance program (as required by CTPAT Minimum Security Criteria). As part of the social compliance program, partners must be able to identify the parts of its supply chain most at risk and provide CBP with this information, if requested. Examples of required evidence include (but are not limited to) unredacted audits of high-risk supply chains related to forced labor, internal training programs for employees on identifying signs of forced labor, and mechanisms used to show the supply chain is free of the use of forced labor.
4. **Due Diligence and Training.** Partners must provide training to suppliers on their social compliance program requirements that identifies the specific risks and helps identify and prevent forced labor in the supply chain. The training should exemplify the company's position against forced labor as stated in their Code of Conduct. Training requirements are determined by the partner but must ensure that the suppliers' business model and code of conduct represent they will not partner with businesses that use forced labor. Proof of training must be made available to CBP upon request.

New CTPAT Requirements

continued

5. **Remediation Plan.** Partners must maintain a remediation plan for their organization, in the event forced labor is identified in their supply chains and provide this information to CBP upon request. The remediation plan must include the process for disclosing the identification to CBP and outline the necessary steps for the organization's employees and suppliers to correct the issue.
6. **Shared Best Practices and Path Forward.** Partners must share best practices with the CTPAT Trade Compliance program, as appropriate, to help mitigate the risk of forced labor.

Please see the following link for the new CTPAT Trade Compliance Handbook:

<https://www.cbp.gov/document/guidance/ctpat-trade-compliance-handbook>

AFSL's third party testing partner, Bureau Veritas, can provide services to assist with the above requirements. A webinar for AFSL members can be scheduled if there is sufficient interest. Those interested in learning more should email Jay at jay.howell@afsl.org and put CTPAT on the subject line.

Accountability Drives Quality and Efficiency

Frequently Found Violations of AFSL Standards in 2022

By William Zhou



AFSL tested over 9.7 million cases of consumer fireworks last year, and the vast majority of them were compliant with our performance standards and applicable U.S. regulations. However, over half a million cases failed to meet our standards and were not permitted to ship to AFSL's clients. Since the beginning of the China Quality Improvement Program (QIP), AFSL has identified and prevented over 12.7 million cases of violative and potentially dangerous or illegal consumer fireworks from shipping to AFSL members.

In the spirit of continuous improvement, we are providing the following information regarding the major violations AFSL staff and BV test technicians discovered in 2022.

Fuse Burn Time - 15% of All Fails

Poor quality fuses, having burn times that were either too long (> 8 seconds) or too short (<4 seconds), and poor assembly workmanship impacted many different types of fireworks in 2022. AFSL identified 82 Lots of Mine and Shell devices, 36 Lots of Fountains, and 24 Lots of Reloadable Shells whose fuse burn time failed to meet the standard. Other types of devices were also impacted, but at lesser quantities.

No Effect - 9% of All Fails

In 2022, we witnessed aerial devices that failed to burst and deliver the effects promised on the product packaging. When that happens, we have a tube full of pyrotechnic composition that falls to the ground where children and other unsuspecting people risk serious injury, when they find and mishandle the unexploded devices. The types of devices failed for this reason included 113 Lots of Mine & Shell devices, 34 lots of Reloadable Shells, and 4 lots of Rockets. For Reloadable Shells, our test protocol requires us to shoot 60 to 120 shells selected from the Lot, depending on the number of shells packed in the retail package. Should any one shell fail to function properly, the entire Lot is failed and prohibited from shipping to AFSL clients.

Frequently Found Violations of AFSL Standards in 2022

continued

Residual Burn - 8% of All Fails

A recurring problem that needs to be addressed is product construction materials and packaging that is ignited by the pyrotechnic effects, either during or immediately after performance or smolders and ignites up to 30 minutes later. AFSL failed 142 Lots for residual burn, with over half the failures associated with Mine & Shell devices, over a third of the failures from Fountains, and the remaining associated with Combination devices. We have witnessed residual burn in some novelty devices and have begun including the residual burn evaluation in the test protocol for those devices. We call on those with expertise in the design and construction of fireworks devices to work diligently to solve this problem. We believe the use of good quality, strong paper tubes, along with the wrapping of all connecting fusing with foil paper or gum tape and the use of nonflammable materials to create the half inch space between each tube, can help to mitigate the risk of this type of product failure.

No Valid EX/FC # on the Product - 8% of All Fails

APA Standard 87-1A requires, among other things, finished consumer fireworks to be “marked with the EX number/FC number on the device, or packaging if the device is too small.” AFSL identified 139 Lots, across 12 different types of consumer fireworks devices, that failed to meet this APA/DOT requirement. Good knowledge of the export market’s legal requirements would have prevented this type of failure.

Device Fails to Function - 7% of All Fails

Hard to think of anything more embarrassing during a product demonstration as lighting the fuse on a device and nothing happens. Ouch! The fuse burns but fails to trigger the performance of the fireworks device. In 2022, AFSL identified 109 Lots of Mine & Shell devices, Fountains, Roman Candles, and other devices that failed to function.

Frequently Found Violations of AFSL Standards in 2022

continued

Flaming Debris Too Close to Ground - 6% of All Fails

AFSL rejected 106 lots, primarily Mine & Shell devices, because flaming debris from the aerial effects dropped below the 3 meters above the ground limit. State Fire Marshals and consumers really don't like fireworks that have the potential to set unintended fires.

Aerial Effects Too Close to Ground - 5% of All Fails

AFSL identified 75 lots of Mine & Shell devices where the main aerial effects occurred below the 5 meters limit and 6 lots of Reloadable Shells where the main aerial burst took place below the 6 meters limit. These Lots were failed and prohibited from shipping to AFSL clients.

Burnout or Blowout - 4% of All Fails

Impacting primarily Fountains and Mine & Shell devices, this mode of failure is a violation of CPSC regulations (16 CFR § 1507.6). AFSL failed 33 lots of Fountains (most were conic fountains), 25 lots of Mine & Shell devices, and 3 lots of Reloadable Shells. Poor quality launch tubes, poor assembly of the delay fuse, and missing lift charges contributed to the failures.

In addition to the failure modes identified above, we also identified Lots of products that did not comply with stability requirements (65 lots), launch tube durability requirements (47 lots), incorrect wording on the cautionary labels (47 lots), total pyrotechnic composition overloads (42 lots), and flash powder in the break charges (41 lots). The discovery of overloaded devices and flash powder is disappointing. The AFSL QIP is not new and those factories producing fireworks for AFSL clients know the requirements. We are working with the appropriate regulatory authorities in the U.S. and China to ensure all consumer fireworks being exported to the U.S. meet all applicable requirements.

If you need more information about these and other violations, please contact me at my email address William.zhou@afsl.org or telephone +86 13874903088.

