



**Celebrating  
30 Years!**

**[www.AFSL.org](http://www.AFSL.org)**

***John D. Rogers, Executive Director***

**5550 Friendship Blvd., Suite 420 • Chevy Chase, MD 20815**

**(301) 907-9115**

# **AFSL GENERAL MEMBERSHIP MEETING**

**Thursday, September 26; 2:00 PM – 4:30 PM**

**Ritz-Carlton Golf Club**

**Naples, FL**

## **A G E N D A**

- I. Report from the Board of Directors ..... Michael Ingram, President**
- II. Election of Directors ..... John D. Rogers, Executive Director**
- III. Financial Report ..... Tad Trout, Treasurer**
- IV. Update on CPSC Proposed Rulemaking ..... Quin D. Dodd, General Counsel**

**Break**

- V. Report on Consumer Fireworks Testing Program**
  - A. Summary of AFSL Test Results ..... John D. Rogers**
  - B. Fireworks Related Injuries Report ..... Jerry Wingard**
- VI. Modifications to AFSL Standards**
- VII. Election Results**
- VIII. Closing Remarks ..... Michael Ingram, President**

## WHAT IS THE AFSL?

The American Fireworks Standards Laboratory (AFSL) is an independent, not-for-profit membership association organized in 1989 to improve the safety of fireworks distributed in the U.S. marketplace. Participation in the AFSL program is voluntary and is available to all U.S. importers, Hong Kong/China shippers, and manufacturers. AFSL is funded through the payment of a quality improvement fee by U.S. importers for each case of fireworks tested under the program. Activities include:

- ❖ Developing voluntary standards for consumer fireworks that incorporate and enhance the mandatory safety standards of the US government.
- ❖ Conducting training and information exchange for the fireworks industry and regulatory agencies in China and in the US.
- ❖ Testing and certifying every shipment to US participants in the AFSL program.



### **2020 Consumer Fireworks Certification Sticker**

This high-security sticker is placed on each carton of a tested Lot to indicate compliance with all AFSL and U.S. government requirements.

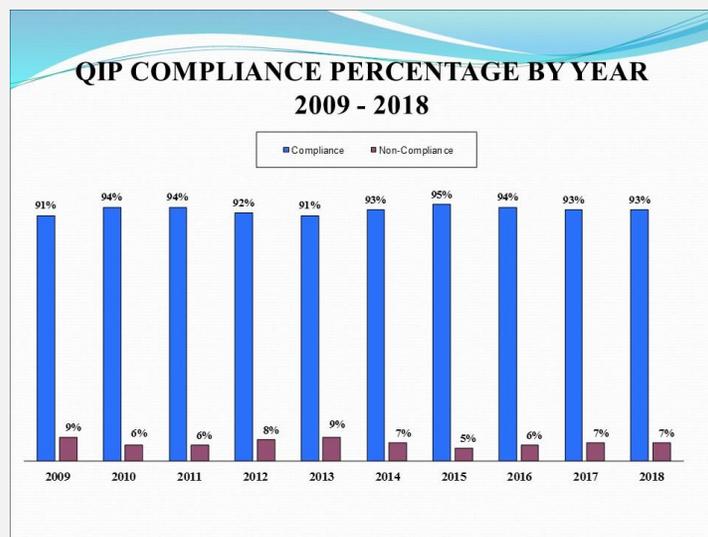
## TESTING VOLUME IN 2018.

AFSL tested 8.50 million cases of fireworks in 2018. This represents 32,237 lots of fireworks tested at more than 300 factories in China. The chart below shows the year-by-year testing volume expressed in shipping cases.



## IMPROVEMENTS IN COMPLIANCE.

The AFSL Program has had a dramatic impact on the compliance of fireworks shipped to the U.S. market. In 1994, the first year of testing, only 64% of tested shipments complied with the AFSL Standards. The chart below shows the level of compliance has remained above 90% for the past ten years.





## AFSL BOARD OF DIRECTORS - 2019



**Joel Anderson**  
Director Emeritus



**Vincent Bellino**



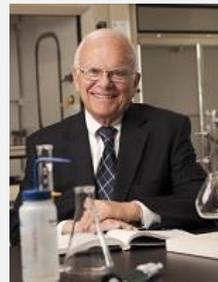
**Michael Cartolano**



**Thomas Chan**



**Michael Collar**  
Member at Large



**John Conkling**  
Technical Adviser



**Glenn Davis**



**Phil Grucci**



**Michael Ingram**  
President



**John Mo**



**Nancy Nord**



**Tad Trout**  
Treasurer



**Joe Wan**



**Alan Zoldan**  
Vice President



## **AFSL STAFF**



**John Rogers**  
**Executive Director**



**Quin Dodd**  
**General Counsel**



**Jieli Tan**  
**Office Manager**



**Jerry Wingard**  
**Project Manager**



**William Zhou**  
**China Audit Control Manager**



**Tony Gong**  
**Auditor**



**Emily Peng**  
**China Administrative Assistant**

# AFSL MEMBERSHIP LIST

## U.S. IMPORTER MEMBERS

1	Alamo Fireworks, Inc., China Grove, TX	41	Fireworks & More, dba Fireworks Outlet, Baldwin, WI
2	All Events Inc. DBA Robbies Fireworks, Jackson, MS	42	Fireworks Fanatics LLC, Wright City, MO
3	America's Thunder Fireworks, LLC, Shepherdsville, KY	43	Fireworks Importing, Inc., St. Joseph, MO
4	American Fireworks Co., Inc., Durant, OK	44	Fireworks Over America, Springfield, MO
5	American Fireworks Co., Inc., Walls, MS	45	Flash Fireworks, Derby, KS
6	American Promotional Events, Inc.-East, Florence, AL	46	Flashing Thunder Fireworks, Mitchell, IA
7	American Promotional Events, Inc.-Northwest, Tacoma, WA	47	Flying Phoenix Corp., Riverton, WY
8	American Promotional Events, Inc.- Texas, L.P., Lubbock, TX	48	Galaxy Fireworks, Inc., Tampa, FL
9	American Promotional Events, Inc.- West, Fullerton, CA	49	Generous Jerry's F.W. Inc., Grand Forks, ND
10	American Thunder Fireworks Inc., North Reading, MA	50	Half Price Fireworks Inc., Harrison, OH
11	Ammo Hut Productions, Inc., Claremore, OK	51	Hamburg Fireworks Display Inc., Lancaster, OH
12	Armadillo Brand, Inc., Lumberton, TX	52	Heartland Associates, Columbia, PA
13	Arrow Fireworks LLC, Yelm, WA	53	Herbie's Famous Fireworks, Inc. T/A South Carolina Distributors, Cherokee Falls, SC
14	Atlas PyroVision Entertainment Group, Inc., Jaffrey, NH	54	High 5 Fireworks, Inc., Junction City, OR
15	Atomic Fireworks Inc. of Arkansas, West Memphis, AR	55	Hisle Enterprises, LLC, Evensville, IN
16	Bada Boom Fireworks, Blakeslee, PA	56	International Fireworks Mfg. Co., Douglassville, PA
17	Bellino Fireworks Inc., Papillion, NE	57	Island Fireworks Company, Hager City, WI
18	Bethany Sales Co. Inc., Bethany, IL	58	J. K. Marketing, LLC, Rexburg, ID
19	Big's Fireworks LLC, Edgewood, TX	59	Jake's Fireworks, Inc., Pittsburg, KS
20	Big Tex Fireworks Ltd., Bastrop, TX	60	Jake's Over Texas, Nederland, TX
21	Boom Town Fireworks, Inc., Dyer, IN	61	Jeff's Fireworks Inc., Fowlerville, MI
22	Burda Brothers, Inc., Monroe, MI	62	Johnny Lemas Fireworks, Angola, IN
23	Burt's Fireworks, Inc., Eagleville, MO	63	Johnny Rockets Display Company, Highland, IN
24	Capital Pyro LLC, Taylorville, IL	64	Jolly-Jacs, LLC, Cheyenne, WY
25	Cassorla Bros, Inc., Battle Mountain, NV	65	K & L Marketing Inc. dba Big Top Fireworks Cummings, ND
26	Cen-Tex Fireworks, Inc. dba Mr. B Fireworks Schulenburg, TX	66	Ka-Boomers Enterprises, Inc., Wahoo, NE
27	C-H Wholesale Fireworks, Inc., Muskogee, OK	67	Keystone Fireworks & Specialty Sales Co. Inc., Dunbar, PA
28	Ches-Lee Enterprises, Bastrop, TX	68	Keystone Novelties Wholesale, LLC, Lancaster, PA
29	Coach's Fireworks LLC, Magnolia, TX	69	L. W. Loyd Co., Inc., South Pittsburg, TN
30	Consigned Sales, Inc., Grandview, MO	70	Lady Liberty Fireworks, LLC/MWB Enterprises, LLC Eads, TN
31	Cornellier Fireworks Co., Ltd., Beloit, WI	71	Lantis Fireworks, Inc., North Sioux City, SD
32	Crazy Cracker Fireworks LLC, Lincoln, NE	72	Lew's Fireworks Inc., Watertown, SD
33	Crazy Debbies Fireworks, LLC, Joplin, MO	73	Liberty Fireworks Inc. – Craig, MO
34	D&T Imports, Inc., Henderson, NV	74	Liberty Fireworks, Inc. – Great Falls, MT
35	Dahlia Group LLC DBA Wild Dragon, New Castle, PA	75	Lucky Dragon Fireworks, Manchester, TN
36	Dapkus Fireworks Inc., Portland CT	76	Magic in the Sky, LLC, San Antonio, TX
37	Eagle Fireworks, Inc., Kent, WA	77	Martin's Fireworks, Manchester, TN
38	Eagle Fireworks, Inc., Marietta, OH	78	Marv's Fireworks, Grand Island, NE
39	Enigma Fireworks Inc., Springfield, VA	79	Michons Wholesale, Moneta, VA
40	Fat City, Inc., Meridiam, ID	80	Micronesia Holding Co., LLC, Saipan, MP

81	Mid-South Imports, Lenoir City, TN	117	Salish Fireworks, Anacortes, WA
82	Mike Killian Wholesale Fireworks, S. Pittsburg, TN	118	Samrok Inc., Calgary, Alberta, Canada
83	Miller Fireworks Co., Inc., Holland, OH	119	Sanedsam Inc., Old Orchard Beach, ME
84	MPI Entertainment Corporation AKA Prosumer Fireworks Brand, Marengo, IL	120	Schneitter Fireworks and Importing Co., St. Joseph, MO
85	Mr. G's Fireworks, San Benito, TX	121	Selva's Fireworks, LLC, Everett, WA
86	Mr. W. Fireworks, Somerset, TX	122	Shelton Fireworks, Eagleville, MO
87	Neeley Sales Co., Inc., Greenwood, SC	123	Sky Blooms Fireworks LLC, Lake Lotawana, MO
88	Nicholson's Wholesale Fireworks, Kaufman, TX	124	Slay's Fireworks, Many, LA
89	Ninja Fireworks Company, LLC, Henderson, NV	125	Southeastern Fireworks, Inc., Birmingham, AL
90	Norred Fireworks, Roanoke, AL	126	Sparkle Fireworks, Inc., Ripley, MS
91	North Central Industries, Inc., Muncie, IN	127	Spirit of '76, Columbia, MO
92	Nostalgia Pyrotechnics, Inc., Osco, IL	128	Spring Field Fireworks, Inc., Bluffton, OH
93	Olympus Fireworks, LLC, Syracuse, UT	129	Star Spangled Novelties LLC, Mosinee, WI
94	P & P Imports Inc., Sparta, MI	130	Starr Fireworks, Horace, ND
95	Patriot Fireworks, USA, LLC, Ann Arbor, MI	131	State Line Fireworks, Inc., Texarkana, AR
96	Patriot USA, Abilene, KS	132	Stateline Fireworks LLC/Tennessee Alabama Fireworks South Pittsburg, TN
97	Phantom Importing & Distributing, LLC Youngstown, OH	133	Stowers, Inc., Luttrell, TN
98	Power Source, Inc., Bonner Spring, KS	134	Sun Pacific Trading Co., Honolulu, HI
99	Precision Pyrotechnics, Inc., Wiggins, MS	135	Superior Fireworks, LLC, Orange Park, FL
100	Precocious Pyrotechnics Inc., Belgrade, MN	136	Sydco Enterprises Inc., St. Joseph, MO
101	Pyro Planet, Ltd., Zelienople, PA	137	The Fireworks Superstore LLC, Hannibal, MO
102	Pyrotecnic Suppliers, LLC, Henderson, NV	138	The Rozzi Company, Inc. dba Rozzi, Inc., Love Land, OH
103	R. Brown & Company, Missoula, MT	139	Thundercat Fireworks & Pyrotechnic Display Co., Inc. Madison, WI
104	Racine Fireside Corp., Caledonia, WI	140	T. H. Y. & Associates, Inc., Keauau, HI
105	Rainbow Fireworks, Inc., Inman, KS	141	Tri-Star Capital Distributors, LLC, Brentwood, TN
106	Rainmaker Enterprises Ltd., Somerset, WI	142	Tri-State Fireworks, LLC, Hazel Green, WI
107	Red Giant Wholesale Fireworks, LLC Hazel Green, WI	143	Two Bears Trading, LLC, Tacoma, WA
108	Red Rabbit Fireworks LLC, Vancouver, WA	144	TYI Trading LLC, Commerce, CA
109	Red Rose Imports, LLC, Willow Street, PA	145	Uncle AL's Seasonal Retail Inc., Ft. Myers, FL
110	Reeves Boomland, Inc., Benton, MO	146	Utah Grand Finale Fireworks, Pleasant Grove, UT
111	Reichenbach Fireworks, Co., Billings, MT	147	Victory Fireworks, Inc., Ellsworth, WI
112	RKM Fireworks/St. Evans Inc., Edwardsburg, MI	148	Vito's Fireworks, Inc., Covington, KY
113	RMK, Inc., - dba Northwest Pyroworks, Enumclaw, WA	149	Wald and Company, Inc., Greenwood, MO
114	Rocket Fireworks LLC, Millstadt, IL	150	Warpath Corp., Plummer, ID
115	S.W.W. Import & Export LLC, Reunion, FL	151	Western Fireworks, Inc., Aurora, OR
		152	Western Pyro Enterprises LLC, Powell WY
		153	Wild Willy's Fireworks, Papillion, NE
		154	Winco Fireworks International, Inc., Lonejack, MO
		155	Winco Utah, Evanston, WY
		156	Wolverine Fireworks Display, Inc., Kawkawlin, MI
		157	Zenith Specialties, L.P., Clinton, MO

116 Safety 4th Fireworks Inc., Stratton, OH

## HONG KONG/CHINA/THAILAND SHIPPER MEMBERS

1	Acme Fireworks Co., Ltd.	46	Liuyang Candour Fireworks Co., Ltd.
2	After Dark Fireworks Import and Export Trade Of Liuyang Co., Ltd.	47	Liuyang Fireworks Limited
3	Ali Fireworks Ltd.	48	Liuyang Flying Dragon Fireworks Co., Ltd.
4	ANCO Pyrotechnics, Ltd.	49	Liuyang Flying Eagle Fireworks Co., Ltd.
5	Asia Pyrotechnics Inc.-Guangzhou Office	50	Liuyang Fuxiang Fireworks Group Co., Ltd.
6	Babytiger Fireworks Imp.&Exp. Ltd., Co.	51	Liuyang Global Fireworks Trade Co., Ltd.
7	Beihai Kylin Fireworks Co., Ltd.	52	Liuyang Goldenkey Trade Co., Ltd.
8	Brothers Pyrotechnics, Inc.	53	Liuyang Hengtai Fireworks Trading Co., Ltd.
9	Changsha Fortune Fireworks Trading Co., Ltd.	54	Liuyang Import & Export Trade Integrated Services, Co., Ltd.
10	Changsha Royal Import & Export Co., Ltd.	55	Liuyang Jiasheng Fireworks Co., Ltd.
11	Changsha Year Import & Export Co., Ltd.	56	Liuyang Jinkou Rising Import & Export Trading Co., Ltd.
12	China DIY Marketing Ltd.	57	Liuyang Jinsheng Fireworks Co., Ltd.
13	China Hunan Liuyang Asian Swan Fireworks Co., Ltd.	58	Liuyang Jumbo Trading Co., Ltd.
14	China National Samkwong Fireworks Co., Ltd.	59	Liuyang Kesheng Trading Co., Ltd.
15	China Skysong Fireworks Co., Ltd..	60	Liuyang Kongsun Fireworks Exp. Trading Co., Ltd.
16	Chinasky Pyrotechnics, Limited	61	Liuyang Leping Import & Export Co., Ltd.
17	Dancing Fireworks Group	62	Liuyang Mandarin Fireworks Co., Ltd.
18	Deqili Trade (Hepu County) Co., Ltd.	63	Liuyang Mei-Mei Fireworks Trading Co., Ltd.
19	Donsun Fireworks Trading Co., Ltd.	64	Liuyang Miracle Import & Export Trading Co., Ltd.
20	Dracon Trading Ltd..	65	Liuyang Pyroshine Fireworks Co., Ltd.
21	Fisherman Pyrotechnics, Inc.	66	Liuyang Qingjia Fireworks Co., Ltd.
22	Forward Fireworks Co., Ltd.	67	Liuyang Qingtai Export Trade Co., Ltd.
23	Fox Fireworks Ltd.	68	Liuyang Raging Bull Imp. & Exp. Co., Ltd.
24	Gate Import and Export Trade of Liuyang Co., Ltd.	69	Liuyang Xiangguang Fireworks Trading Co., Ltd.
25	Glorious Co.	70	Liuyang Xiaohe Fireworks Mfg. Co., Ltd.
26	Guangzhou Holiday Import & Export Co., Ltd.	71	Liuyang Yihelong Trade Co., Ltd.
27	Hefung Fireworks Co., Ltd.	72	Liuyang Yongfa Industry Co., Ltd.
28	Hong Kong Bravo Fireworks Co., Limited	73	Miracle Trading Limited
29	Hop Kee Pyrotechnics	74	Oasia International Ltd.
30	Hua Hui Fireworks Manufacturing Co., Ltd.	75	Omni Trading Co.
31	Hunan C & L Trade Co., Ltd.	76	Po Sing Pro Pyrotechnics Ltd.
32	Hunan Liuyang Worldwide Fireworks Co., Ltd.	77	Pyro Formex, Inc./Golden Bear Fireworks, Inc.
33	Hunan Mega Imports & Exports Trading Co., Ltd.	78	Pyromooi Fireworks Ltd.
34	Hunan Top and Ideal Trading Development Co., Ltd.	79	Pyro Pro Co., Ltd.
35	Hunan Vanguard Business Development Co., Ltd.	80	Red Eagle Industrial & Trade Co., Ltd. Hebei
36	Hunan Welldone Fireworks Co. Ltd.	81	Shangli Tongle Trading Co., Ltd.
37	Hunan Winwell Import & Export Trading Co., Ltd.	82	Shiu Fung Fireworks Co., Ltd.
38	Inter-Oriental Fireworks (HK) Limited	83	Shiu Sing Fireworks Co., Ltd.
39	Jiangxi Changshan Exporting Fireworks Manufacture Co., Ltd.	84	Shogun Pyrotechnics Ltd.
40	Jiangxi Dahlia Trade Co., Ltd.	85	Space Trading Co., Ltd.
41	Jiangxi Panda Fireworks Co., Ltd.	86	Stellar International Trading Co., Ltd.
42	Jiangxi Ping Xiang Dancing Red Devil I&E Co., Ltd.	87	Sunlight China Products Ltd.
43	Jiangxi Province Red Horse Fireworks Co., Ltd.	88	Sunshine Promotion Product Company
44	Jiangxi Wanzai Golden Peak Corporation	89	Thunder Trading Co., Limited
45	Legend Fireworks, Inc.-Changsha	90	Titan Fireworks Limited

- |    |   |     |  |
|----|---|-----|--|
| 91 | Topgun Fireworks Co., Limited               | 97  | Win Da Hong (HK) Co., Ltd.               |
| 92 | T-Sky International Group Co., Limited      | 98  | Worldwide Exporting Limited              |
| 93 | United Pyrotechnics USA Inc.                | 99  | Wukong Fireworks Ltd.                    |
| 94 | Wanzai Century Import &<br>Export Co., Ltd. | 100 | Yichun Fenghua Import & Export Co., Ltd. |
| 95 | Wanzai Color Trading Co., Ltd.              | 101 | Yongfeng Fireworks Co., Ltd.             |
| 96 | Wanzai Hongrui Trade Co., Ltd.              | 102 | Yuen Loong Hong Firecrackers Ltd.        |
|    |   | 103 | Pacific Pyro Company Limited (Thailand)  |

## **GENERAL MEMBERS**

- |   |  |   |   |
|---|--|---|---|
| 1 | American Pyrotechnics Association,<br>Bethesda, MD | 3 | Hong Kong Pyrotechnics Association,<br>Hong Kong      |
| 2 | Drayton Insurance Brokers, Inc.,<br>Birmingham, AL | 4 | Hua Yang Transportation Co., Ltd.,<br>Shanghai, China |

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## THE YEAR IN REVIEW

### AFSL CELEBRATES 30 YEARS OF OUTSTANDING SERVICE TO THE INDUSTRY

Speak to anyone who has been in the fireworks industry for more than a few years about the quality of fireworks marketed today and, almost without fail, you will get the same response: “The safety and quality of performance of fireworks is by far better today than at any point in the history of our industry!” Given that fireworks continue to be largely hand-made by workers who are perennially on the lower end of the wage scale in China, and often manufactured in undesirable weather conditions, that’s a pretty remarkable statement. More importantly, it is true.

In my more than 25 years of working **for** AFSL (I was actually working **with** AFSL as a representative for CPSC, from its very beginnings), I have heard industry members and even some government officials make statements like “AFSL saved the fireworks industry.” While I would love to take some of the credit for that feat, the truth -- is the fireworks industry saved itself. How? I’ll get back to that.

AFSL had some very gifted people at its roots. People like Joel Anderson of TNT Fireworks, whom we refer to as the Founding Father of AFSL (he conceptualized and incorporated the association as a 501(c)(3) non-profit in March 1989). And he almost single-handedly persuaded China manufacturers and U.S. importers that a program like AFSL was critical to the survival of the industry. There were also other industry leaders involved in the process: Alan Zoldan and Jerry Bostocky of Phantom Fireworks, Dr. John Conkling, then the Executive Director of APA; Chi-Kay Cheung representing the Hong Kong Pyrotechnics Association; and John Rogers, representing CPSC. Dubbed the “Shekou Six”, they spent two weeks in Shekou China in 1988,



L to R: John Rogers (CPSC), Chi-kay Cheung, Sandy Conkling with representatives from a Trading Company whose products were being evaluated in Shekou China. 1988.

of APA; Chi-Kay Cheung representing the Hong Kong Pyrotechnics Association; and John Rogers, representing CPSC. Dubbed the “Shekou Six”, they spent two weeks in Shekou China in 1988,

meeting with China industry and testing their products. Three out of four of their fireworks failed the CPSC regulations.

There was also a lady in China, Madam Zhang Kaisen, now deceased, who was a Director at China



L. to R., Alan Zoldan, John Conkling, Jerry Bostocky and Joel Anderson in Shekou, China in 1988. Note tape on hotel windows for incoming typhoon.



The original Shekou Six receive awards for contributions to fireworks industry. Miami, FL 2014.

TUHSU (roughly China's version of CPSC) who also had the foresight to recognize that the China industry needed to change or face extinction in the U.S. market. Without her efforts to persuade the China trading companies and factories to cooperate, AFSL would not have taken hold. She was smart and powerful, and I like to refer to her as the Mother of AFSL.

One of AFSL first tasks was to assemble a Standards Committee, comprised of representatives from each segment of the fireworks industry; federal and State regulators; other parties who have an interest in the industry; and a consumer representative. The Standards would incorporate all mandatory regulations published by CPSC and applicable requirements from DOT, as well as new voluntary standards to cover gaps in the existing mandatory requirements. Once finished, the standards were translated into the Chinese language and distributed widely to the factories and shippers in China.

The first version of the AFSL program (1991-1993) authorized factories/shippers to do their own testing to the newly developed AFSL standards. If their product complied, they could print the AFSL logo on their shipping cartons. That worked for just a few months; long enough for AFSL to figure out that the factories/shippers were pre-printing the AFSL logo on all their fireworks cartons and shipping them around the world. We began receiving calls from as far away as Australia asking what the AFSL is. How much real testing was being done is debatable.

At that point, we decided to hire an independent third party testing laboratory with boots on the ground in China to test our products. Our first tests were conducted in 1994 in Guangdong Province, which was the center of fireworks production in China. Occasionally, we would send teams to Hunan Province to test at the request of specific shippers. In the mid-to-late 1990's as fireworks production shifted inland, our resource needs changed and our entire operation moved to Liuyang, Hunan. Over the span of 25 years, AFSL has worked with three different testing laboratories: Intertek Testing Services (1994 to 2009); SGS (2009 to 2015); and Bureau Veritas (2015 to present). All three are world-renowned, independent, highly credible test labs that are the best in the world at what they do. Only problem was – none of them had ever tested a single fireworks device. We invested countless hours in developing a Testing Manual, most of which was lifted from the CPSC's Test Manual (they were happy to oblige us). We recruited and personally trained technicians to conduct the tests and managers to oversee their work. Interestingly, as we have moved from one lab to another, we have developed a core group of technicians and supervisors that have moved with us. Note in the article on Technician Training on page 13 below, we presented awards this year to technicians who have ten to 25 years of experience in testing within our program.

Our initial testing in 1994 was limited to five "high-risk" categories of fireworks: mine and shell devices, firecrackers, reloadable tube aerial shell devices and rockets/missiles, and Roman Candles. We tested 900,000 cases that year and failed more than one third of all products tested. Every year or so we added a new product category to the list – known as Category I Fireworks - until the program covered every category made in China.

While the primary focus of the AFSL program has been and will continue to be the testing in China, there is so much more we do on a daily basis that affects the safety of fireworks. Our industry, like most, is constantly facing new challenges, whether it is with new but unexpectedly troublesome products coming into the market; the identification of new hazards with old products; or making sure the industry's voice is heard on new policies or regulations being imposed on the industry by any one of the slew of agencies that regulate

the fireworks industry. Because of its work in developing new product standards and its role in testing products in China for an estimated 85-90% of all fireworks imported into the U.S., AFSL is in a unique position to provide its expertise and experience to the regulators.

AFSL also is able to identify product hazards and trends even before they become known to the regulatory agencies, and develop voluntary solutions within a time frame that no regulatory agency can match.

My final point relates to the cost of the AFSL program. In 1994, when the first tests were conducted, we charged a flat fee of US\$0.50 for each case in a tested lot. In 2019, importers still are paying US\$0.50 per case for testing. The fee did change once. In the early 2000's the fee was lowered to US\$0.45 per case. As overall testing and operational expenses increased, we went back to the US\$0.50 per case a few years ago. Even so, I cannot think of any other service I subscribe to that has maintained this level of stability in operating costs for 25 years. The fact that AFSL is a non-profit corporation is works very much to the industry's advantage.

Now, back to my earlier point about the industry saving itself. All that I have said about the history and the merits of the AFSL program is true. However, the greatest services in the world have no real value if no one buys them. So, our deepest gratitude to you for buying into the program, even when you questioned whether our approach was best for the industry. Our total membership has grown to 264 shippers, importers and general members and has hovered steadily around that number for many years now. Thank you for understanding that regulation, whether mandatory or voluntary, can be a good thing for the long term health and wellbeing of our industry. We deal in hazardous products no matter how you slice it. The fact that we have come back from the brink of extinction in the early 1990's to an industry that is healthy, prosperous, and well respected even by the agencies that regulate us is remarkable. But only because you chose to buy into the program.

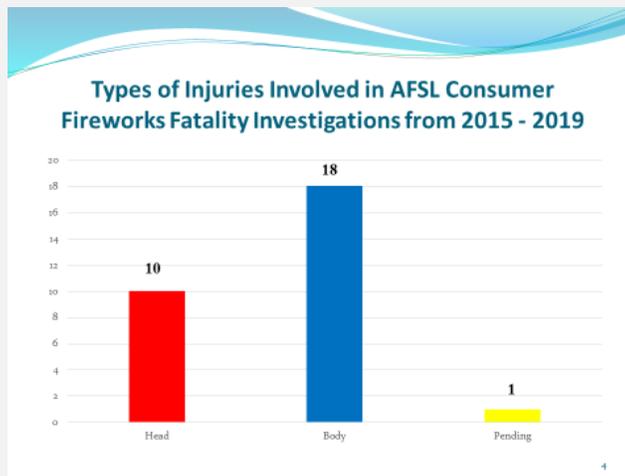
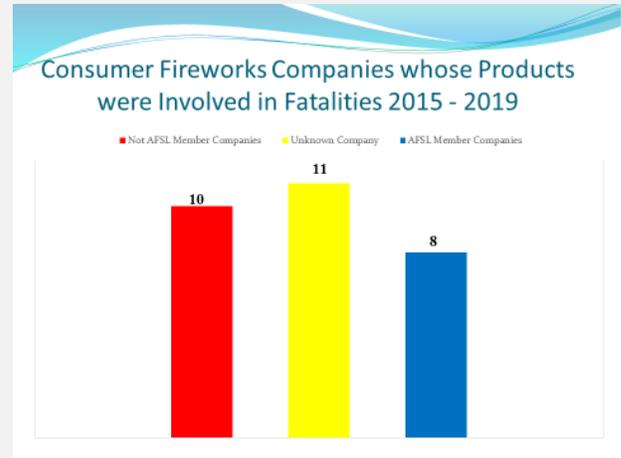
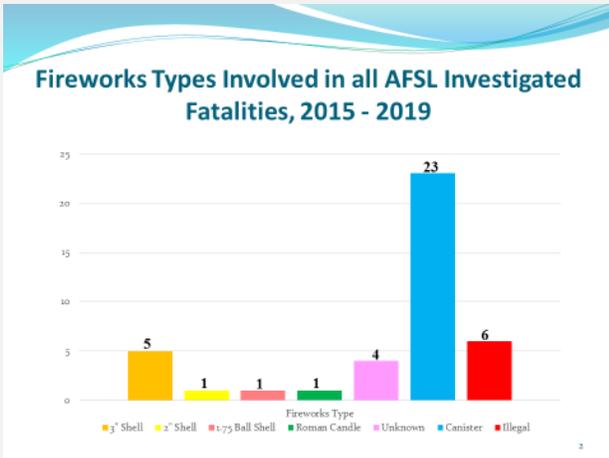
*John Rogers, Executive Director*

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## **CONSUMER FIREWORKS DEATHS SPIKE IN 2019**

During the past few years, there has been an unprecedented increase in the number of deaths associated with all types of fireworks and illegal explosive devices. In general overall injuries have not increased significantly. According to injury statistics issued by the Consumer Product Safety Commission in June 2018, injuries associated with reloadable tube aerial shell devices were the second leading cause of fireworks-related injuries reported by CPSC. According to data from CPSC, reloadable shells account for 12% of all reported injuries. Sparklers remain the leading cause of fireworks related injuries with 14% of all injuries.

In 2015, AFSL began investigating reports of fatalities associated with fireworks in an effort to identify the products involved and determine if steps could be taken to reduce the potential for injuries and fatalities. During this time, the number of fatalities associated with fireworks has reached level never before seen in our industry. Following is a summary of the data collected by AFSL for the past four years.



While any fatality associated with consumer fireworks is unfortunate and unacceptable to the industry, it is worth noting that the reloadable shell fatalities appear to be the result of misuse of the products. AFSL is continuing to study reloadable shell designs to determine if design modifications, additional warning labels, etc., might reduce the potential for consumers to misuse these devices.

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## CHINA TESTING PROGRAM RECEIVES MAJOR OVERHAUL

During the past two years, AFSL and its testing partner, Bureau Veritas, have been reviewing the China testing program and looking at ways to improve its operations. As a result, several modifications have been, or will be implemented soon to assure we are providing the best service possible to our members.

## INCREASE IN NUMBER OF TECHNICIANS

AFSL evaluated the manpower needs of the program by multiplying the number of tests conducted by

BV each year to the amount of time required for a team to test each category of products. We also determined how many tests were being conducted by each team and the data indicated that each team was being assigned more tests per day than one team could reasonably do. On average, one team can conduct 7.5 tests per day; however, based on the number of tests performed, each team was being assigned an average 11 Lots per day.

Obviously, this situation increases the likelihood that all the required tests would not be performed for each Lot tested. After discussing corrective measures with BV, we have decided to increase the number of technicians assigned to the program. In addition to adding four full-time technicians, BV also has assigned 8 part-time technicians to the program in peak testing periods. These technician are committed to the program as their first priority and are undergoing intensive training by BV. These resource increases will become effective October 1, 2019.

## **VIDEOTAPING OF TESTING**

In 2015-2016, AFSL identified a troublesome trend wherein the number of products failing the requirements for fuses, including both short and long fuse burn time and fuse side ignition failures, increased significantly. These failures were borne out both in the AFSL test data as well as pass/fail data provided by CPSC. CPSC reported fuse failure as the leading reason that fireworks previously tested by AFSL were failing when tested by the agency.

The first corrective measure we took was to tighten the fuse burn requirements under our program. Instead of testing to the 3 to 9 second mandatory requirement, we began testing in China to a 4 to 8 second burn time. The idea was that any items that met our stricter requirement would be more likely to pass the CPSC's 3 to 9 second requirement. We also conducted a study of the impact of transportation of fireworks from China to the US on the performance of fuses when tested by CPSC. No noticeable difference was detected in the fuse burn times.

In 2017, we took a different approach and asked BV to begin videotaping all fuse tests conducted by our teams. Body cameras were purchased for each team and they recorded all tests related to fuses. This experiment has succeeded. Within our program in China, we recorded failure rates that were nearly twice as high as those where the tests were not recorded. More importantly, data provided by CPSC shows in the past year, fuse failure have declined dramatically in products that they test.

As a result, AFSL has requested, and BV has agreed to expand the areas of testing that will be videotaped. Powder weighing tests, reloadable tube abuse testing (the upside down test), and several other areas are being studied for videotaping. We will continue to expand the recording of testing so that in the near future, all tests conducted by our team will be recorded. We believe this will improve the quality of work performed by our teams and reduce the potential ethics issues to arise.

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## MODIFICATIONS TO AFSL STANDARDS

During the past year, AFSL modified one Standard for products tested and certified under the China program. The modification addresses the permissible length of canister-type reloadable tube aerial shell devices, as follows:

### I. REMOVAL OF 4-INCH SHELL LIMIT ON CANISTER SHELLS

AFSL has amended its Standard for Reloadable Tube Aerial Shells **to eliminate the requirement that canister-type reloadable tube aerial shells must not exceed 4 inches in length.** The modification had an effective date of February 28, 2019, immediately following Board approval, which means any products submitted to the AFSL testing program will **not** be subject to the 4-inch length limit on and after that date.

In June 2016, AFSL modified the Standard for Reloadable Tube Aerial Shell devices by limiting the overall length of canister shells to 4 inches. This was done in an effort to reduce the overall explosive force of the items in response to the recent increase in the number of deaths reportedly associated with these products. While both CPSC and AFSL limit the diameter of all reloadable shells to 1.75 inches, there is no limit on the overall length of canister shells. The “typical” length of canister shells is approximately 4 inches; however, in recent years, some models are being marketed in 5 inch and 6 inch lengths.

The Standards Committee has continued to monitor canister-style shells in the marketplace to evaluate the continued need for a limit on the length of canister shells. Recently, AFSL collected 7 different models of canister shells measuring from 4.75” – 5” in length. The pyrotechnic composition of these shells was measured and the tube abuse test was performed on each sample. The shells ranged from 46 to 80 grams of total composition with three of seven exceeding the existing 60 gram limit; 2 of the seven items failed the tube abuse test. These data indicate that while the canister shells longer than 4 inches in length remain in the marketplace (although not certified by AFSL), more than half of them comply with the 60 gram composition limit, and most of them pass the critical tube abuse test conducted by AFSL.

The Committee also noted that while the AFSL Standard contained the 4-inch length limit, the current version of APA 87-1 retains the 60 gram composition limit but contained no limit on the length of canister shells. It also noted that CPSC does not limit the length of canister shells. The Committee concluded that the AFSL standard should be modified to be consistent with the APA 87-1 requirement by removing the 4-inch limit on shell length. The Committee believes that AFSL’s continued reliance on the 60 gram composition limit as well as the tube abuse test will serve to limit the overall force associated with the shells without requiring a shell length limit. The Committee also noted that removing the 4-inch length limit prevents AFSL members from being held to a stricter limit than non-AFSL importers.

### II. TESTING FOR TESTING FOR VISUAL EFFECTS LIMITS IN FOUNTAINS

While not an amendment to the Standard, AFSL also notified members that AFSL will begin to test consistently for the height and diameter of visual effects in fountain devices, effective October 1, 2019. Testing to these requirements has been inconsistent in the past due to the absence of proper testing equipment to measure the effects. AFSL directed its testing laboratory, BV, to assure that each test site used by the technicians has the proper measuring equipment for evaluating the performance of fountains, consistent with

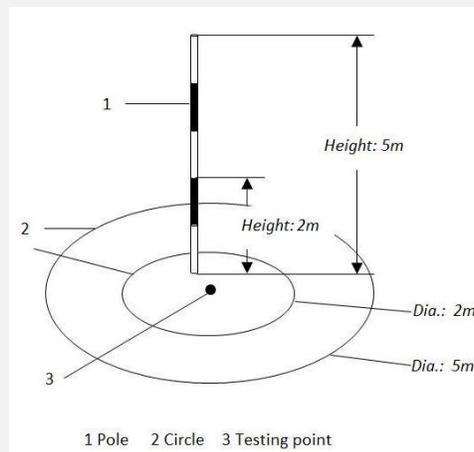
the existing AFSL standards.

As a reminder to all participants, following is a description of the visual effects limits for all fountains:

- Visual effects of base and spike fountains must not extend a 5-meter diameter circle at ground level.
- Visual effects of base and spike fountains must not extend beyond 5 meters in height.
- Visual effects of hand-held fountains must not extend beyond a 2-meter diameter.
- Visual effects of hand-held fountains must not extend beyond 2 meters in height.

Due to the lack of proper testing equipment at test sites, AFSL may have passed items in the past that in fact exceeded the maximum height and diameter limits described. As a result, and in order to avoid hardship to factories that may have inventories of products exceeding these limits, AFSL is delaying the implementation date for this corrected testing to October 1, 2019. Prior to that date, if a fountain is tested by AFSL and exceeds the height/diameter limits, AFSL will not fail the shipment at this time, but will provide a notice to the factory/shipper that the item exceeds the maximum limits and must be modified before October 1, 2019. After that date, any shipments submitted for testing will be failed if they do not meet the height and diameter requirements for effects.

AFSL/BV is notifying factories that a suitable test fixture must be provided at each test site to allow technicians to perform the test. The test fixture must include a permanently affixed 5-meter pole with the appropriate height markings painted on, or otherwise attached to, the pole. In addition, there must be a 5-meter circle marked on the ground around the pole to measure the diameter of the effects. Please refer to the following diagram for details:



If the factory site is not sufficient to allow for the installation of the necessary 5-meter pole and circle, AFSL will transport the samples to a central test site to complete these tests. As always, if a factory wishes to submit a sample to AFSL to evaluate the height/diameter of the effects prior to the October 1, 2019 implementation date, please contact the local AFSL or BV office.

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**AFSL RECOGNIZES TECHNICIANS FOR YEARS OF SERVICE, OUTSTANDING PERFORMANCE**



Star Cao receives award for highest score on the Technicians exam.

AFSL’s Annual Technician Training Course was held on June 2019. During the course of the training, technicians were recognized for long-term service to the program. Also, an award was presented to the technician receiving the highest score on the mandatory written exam.



Cass Ruan, Senior Supervisor, receives a 20 year Service Award.



Chris Cai receives an award for longest service to the program – 25 years.

BV’s Director of Inspections for Greater China, Katherine Wang (front row of team photograph on page 14, below, to the right of John Rogers), participated in the Technicians Dinner and ceremonies. Catherine has been the driving force behind the program since BV took control in 2015, and continues to take a hands-on interest in assuring that program needs are met. She also presented gifts to the persons who planned and made presentations during the training course. Catherine’s Chief Assistant, Wendy Wong (to the immediate left of John Rogers in the photo) participated in the entire week of training, particularly in the

Ethics/Integrity section. AFSL’s project Manager, Jerry Wingard (back row, 4<sup>th</sup> from the left) also participated in the training course and spent an extra week conducting testing with the AFSL teams. Note also that there are several technicians-in-training in the photo. AFSL encourages team members to bring their families to the dinner and several did so.



Leo Liu, Program Operations Manager for the program receives 10-year service award.



**AFSL China Team and Managers, June 2019**

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## WE HAVE MOVED!

After 23 years of operating its headquarters office at 7316 Wisconsin Avenue, Suite 214, Bethesda, MD, 20814, AFSL was kicked out of its downtown Bethesda location. Although we had signed a lease through the year 2021, AFSL was notified at the beginning of this year that our modest building was being torn down to make room for a 25-story condominium with commercial and retail space located on the ground level.

This is consistent with the continuing effort to turn downtown Bethesda into a high-rise, high-cost business and residential center with rents as high as \$70 per square foot, more than double what we were paying for the space. But not to worry. We were able to negotiate a sweetheart deal for a new space a couple of miles away and secured a long term lease at a per-square cost of less than what we were paying at the old location. Our move into the new space took place on August 16, 2019. Our new address is 5550 Friendship Boulevard, Suite 420, Chevy Chase, MD 20815. Fortunately, our telephone numbers, fax, and email address all did not change.



Our new location is three blocks from the Friendship Heights Metro station and has underground parking for visitors. Two hotels, Embassy Suites and Courtyard by Marriott, are nearby.

Along with our new location, we also updated our logo, stationery and business cards to a design that is more consistent with today's trends.



If you are visiting the Washington DC area in the near future, please stop by to see us. And of course anytime you want to come in to meet with us for business purposes, we strongly encourage you to do so.

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## AFSL GENERAL MEETING AT NFA EXPO 2019

AFSL held an annual General Membership Meeting on September 11, 2019, during the NFA Expo in Branson, Missouri. President, Mike Ingram opened the meeting with comments on the pending Notice of Proposed Rulemaking that is expected to be voted on by the Commissioners on September 24, 2019. He



AFSL President Michael Ingram addresses AFSL General Membership Meeting at the NFA EXPO.

expressed AFSL and APA's strong support for the recommendation of the CPSC staff to implement the proposed rule, including a limitation on the use of fine mesh metal powders in the break charge. He acknowledged that AFSL/APA are aware that some NFA members do not support the rule as proposed but indicated he is confident that once a decision is made by CPSC, the industry will move to comply with the rule without any significant disruption to the industry and AFSL's testing program. Mike closed his remarks with a very interesting account of his history in fireworks, including initial start-up with a retail stand that earned him \$200 in his first year.

John Rogers presented a summary of AFSL activities during the past year, including modifications to the AFSL

Standards. Chuck Rogers, from BV, provided an explanation of how AFSL/BV will implement testing for the new CPSC requirements, including the fine metal powder restriction if they in fact are approved by the Commission. Jerry Wingard discussed the disturbing increase in the number of fireworks related deaths he has investigated this year. While members voted for Directors during the meeting, results of their votes will not be tallied until the second General Membership meeting

takes place on September 26, 2019 in Naples, FL. The AFSL staff, including Jieli Tan, Jerry Wingard, and William Zhou hosted a booth at the NFA Trade Show.



William Zhou at the AFSL tradeshow booth.

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## Counsel's Corner

*Quin D. Dodd, Esq.*

*General Counsel to the AFSL*



At long last, after almost four years of tireless work by staff for the Consumer Product Safety Commission and testing and other technical input by the AFSL and extensive advocacy by both the AFSL and APA, the CPSC is finally poised to vote on the staff-proposed Final Rule (FR)<sup>1</sup> amending the agency's mandatory consumer fireworks safety standards. These would be the most significant changes to CPSC's consumer fireworks standards since the agency's inception. As of this writing, it is anticipated that the vote will take place on September 24, 2019, during the APA Annual Convention in Naples, Florida. Also, as of this writing, it remains unclear whether the FR will be approved by the Commission, either in its present form or possibly upon amendment by the Commission.

And in related news, just last week in an unexpected move, Acting Chairman and Republican Ann Marie Buerkle voted for Democrat Commissioner Robert Adler to become the new Vice-Chairman of the Commission, which 3-2 vote now assures him the Acting Chairmanship when Buerkle resigns at the end of this month (and she has announced she will step-down as Commissioner at the end of October). How this unexpected turn of events might impact the vote on the 24<sup>th</sup> is anyone's guess, but AFSL has remained engaged with all commissioners and fighting to ensure that consumer fireworks remain safe and that therefore the U.S. fireworks industry remains strong.

As presently drafted, the staff-proposed FR contains the following provisions:

- Adopts AFSL/APA ban on fine mesh metals in the break/burst charge of aerial consumer fireworks (with one percent discretionary allowance, by weight, to allow for contamination)—this would replace the CPSC “no audible effect” standard and the much-criticized “ear test” to determine whether or not an aerial device has a purposeful or incidental audible effect;
- Adopts AFSL/APA total composition limits and break charge-to-overall composition ratio limits for aerial devices, specifically:
  - Limits sky and bottle rockets to 20 grams of composition;
  - Limits mine and shell devices to 60 g of composition per tube; 20 g of lift charge (for each tube); 200 g/500 g total composition; and break charge may not exceed 25% of total composition, exclusive of the lift charge;
  - Reloadable aerial devices limited to 60 g of composition per shell; 20 g of lift charge per shell; 400 g total composition per kit; and break charge limit of 25% of total composition, exclusive of lift charge ;
  - Lift charges limited to black powder only;

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<sup>1</sup> The full CPSC staff “package” for the FR, including the proposed new regulatory text, may be found at: <https://www.cpsc.gov/s3fs-public/Final%20Rule%20-%20Amendments%20to%20Fireworks%20Regulations%20-%20September%2026%202018%20%281%29.pdf?yr30bGVazalQcEbznPy46T81o1iulFr> Also contained in this staff package is a detailed refutation of arguments made in opposition to the proposed new ban on metal powders in aerial device break charges.

- Adopts AFSL/APA limit on firecrackers to 50 mg of composition (except for firecrackers used as a component of a rocket);
- Adopts AFSL/APA requirement that bases remain “securely attached during handling, storage and normal operation;”
- Adopts AFSL/APA prohibition on “burnouts” and “blowouts;” and
- Defines various terms (banned “aerial bomb,” “burst charge,” etc.).

As presently written, the FR would go into effect one year from its adoption by the Commission and publication in the Federal Register.

Despite initially scheduling and then withdrawing a vote on the FR in October 2018, the Commission has been internally discussing the FR, especially the proposed ban (1% limit) on metal powders in aerial device break charges. Some within the industry have opposed the proposed ban as being unnecessarily restrictive and lacking any demonstrable safety benefit. It has continued to be the position of both AFSL and APA that a reasonable limit on metal powders in break charges is necessary to protect consumers from overly energetic aerial fireworks, especially the very popular reloadable tube devices, the use (and misuse) of which has resulted in over 30 consumer deaths since 2015, with the number of deaths continuing to trend sharply upward. (This year alone there have been at least 10 known consumer deaths thus far from the use of reloadable tube aerial fireworks).

Representatives of both the AFSL and APA have met repeatedly with both CPSC commissioners (the last series of meetings was earlier this month—September 2019), CPSC staff, as well as key Members of Congress to argue for adoption of the staff-proposed FR in its entirety, including the metal powder ban for break charges. Again, by the time you are reading this, the Commission should have made its final decision in this regard.

Should the Commission in fact adopt the FR as presently written, including the ban on fine mesh metals in break charges, AFSL is fully prepared to incorporate those new requirements into our China testing and certification program, and has already initiated pilot testing and other efforts to ensure that AFSL members are fully compliant with the new regulations.

AFSL will continue to strive to continually improve our China testing and certification program, to stridently advocate for the interests of our members, and to otherwise work to ensure that consumer fireworks continue to be safe for American families, thereby ensuring the continued growth and success of the U.S. consumer fireworks industry.

*Questions or comments regarding this article may be sent to: [afslhq@afsl.org](mailto:afslhq@afsl.org).*