

AFSLTM

AMERICAN FIREWORKS STANDARDS LABORATORY

www.AFSL.org

**ASSURING
SAFETY &
QUALITY
THROUGH
TESTING**

John D. Rogers, Executive Director
7316 Wisconsin Ave., Ste 214 Bethesda, MD 20814
(301) 907-9115

AFSL GENERAL MEMBERSHIP MEETING

Thursday, September 22, 2016; 2:00 PM – 4:00 PM

Hotel Monteleone

New Orleans, LA

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's Proposed Interpretive Rule Quin D. Dodd, General Counsel**
- V. Report on Consumer Fireworks Testing Program John D. Rogers**
 - A. Summary of Test Results**
 - B. New Standards Approved by Board**
 - C. Summary of Audits Conducted at Importers' Warehouses**

Break

- VI. Election Results**
- VII. Closing Remarks Michael Ingram, President**

AFSL – AN OVERVIEW

The American Fireworks Standards Laboratory (AFSL) is an independent, not-for-profit membership association organized in 1989 to improve the safety and compliance with mandatory and voluntary requirements for fireworks distributed in the U.S. marketplace. Participation in the AFSL program is voluntary, and is available to all U.S. importers and Hong Kong/China shippers that sign a participation agreement with AFSL. China factories, though technically not AFSL members, participate in the program by making available shipments of fireworks for evaluation and certification. AFSL currently has listed more than 800 factories in China that provide products that are tested and certified on behalf of U.S. importer participants. AFSL is funded through the payment of a quality improvement fee by U.S. importers for each case of fireworks imported under the program. Services provided include:

- ❖ Developing voluntary standards for both consumer and display fireworks that incorporate existing mandatory regulations of the Consumer Product Safety Commission (CPSC), U.S. Department of Transportation (DOT), Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), and other appropriate voluntary standards;
- ❖ Conducting industry-wide training seminars for manufacturers, related industries, and industry associations in China and working directly with individual manufacturers to assure that the industry is fully aware of requirements that fireworks exported to the U.S. must meet;
- ❖ Performing on-site quality improvement and product evaluation reviews to determine if fireworks shipments comply with the appropriate mandatory regulations and voluntary standards. All product evaluations are conducted by an independent, world-renowned testing laboratory, Bureau Veritas, under a contract with AFSL. Shipments that meet all criteria are identified by the application of a high-security certification sticker and a Lot identification stamp on each shipping carton.



Consumer Fireworks Certification Sticker

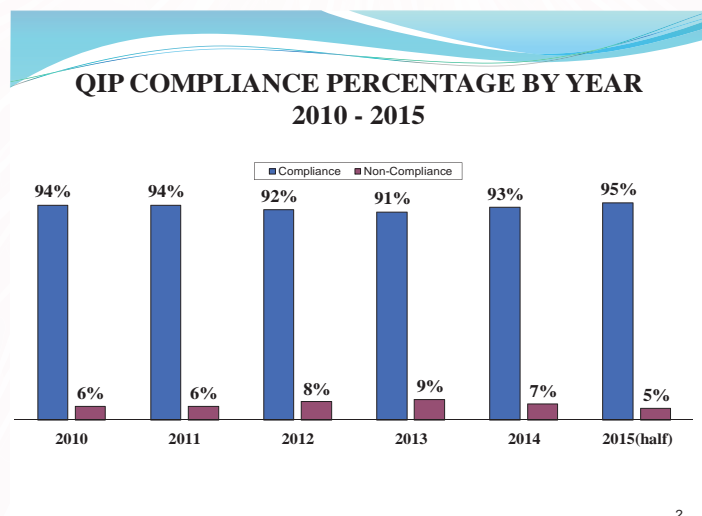
RECORD TESTING VOLUME SET IN 2015.

AFSL tested a record of 8.76 million cases of fireworks under the consumer fireworks testing program in 2015, exceeding the previous record of 7.87 million cases in 2014. This represents approximately 35,500 lots of fireworks tested at more than 500 factories in China. The chart below shows the year-by-year testing volume expressed in shipping cases. In addition, the compliance rate reached 95% in 2015 which also was a record high.



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 shipments tested complied with the AFSL Standards. The chart below shows the level of compliance has remained above 90% for the past six years.





AFSL BOARD OF DIRECTORS



Joel Anderson
Director Emeritus



Michael Cartolano



Thomas Chan



Michael Collar
Member at Large



John Conkling
Technical Adviser



Chester Davis



Phil Grucci



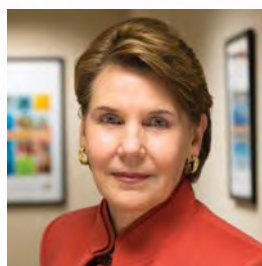
Michael Ingram
President



Mick Marietta
Secretary



John Mo



Nancy Nord



Tad Trout
Treasurer



Joe Wan



Alan Zoldan
Vice President



AFSL STAFF



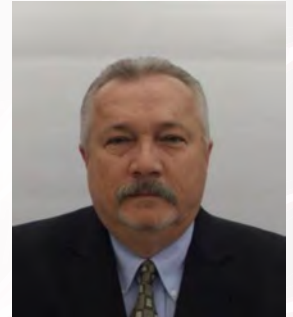
John Rogers
Executive Director



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

CONSUMER FIREWORKS MEMBERS (U.S. IMPORTERS)

1	Advanced Technique Fireworks, Inc., Goshen, KY	32	Consigned Sales, Inc., Grandview, MO
2	Alamo Fireworks, Inc., China Grove, TX	33	Cornellier Fireworks Co., Ltd., Beloit, WI
3	All Events Inc. DBA Robbies Fireworks, Jackson, MS	34	Crazy Cracker Fireworks LLC, Lincoln, NE
4	America's Thunder Fireworks, LLC, Shepherdsville, KY	35	Crazy Debbies Fireworks, LLC, Joplin, MO
5	American Fireworks Co., Inc., Durant, OK	36	D&T Imports, Inc., Henderson, NV
6	American Packaging LLC, Kansas City, MO	37	Dahlia Group LLC DBA Wild Dragon New Castle, PA
7	American Promotional Events, Inc.-East, Florence, AL	38	Dapkus Fireworks Inc., Portland, CT
8	American Promotional Events, Inc.- Northwest, Tacoma, WA	39	Dynamite Fireworks, Seymour, MO
9	American Promotional Events, Inc.- Texas, L.P., Lubbock, TX	40	Eagle Fireworks, Inc., Kent, WA
10	American Promotional Events, Inc.- West, Fullerton, CA	41	Eagle Fireworks, Inc., Marietta, OH
11	American Thunder Fireworks Inc., North Reading, MA	42	Enigma Fireworks Inc., Springfield, VA
12	Ammo Hut Productions, Inc., Claremore, OK	43	Extreme Pyro Fireworks, LLC, Gulfport, MS
13	Armadillo Brand, Inc., Lumberton, TX	44	Fat City, Inc., Meridiam, ID
14	Arrow Fireworks LLC, Yelm, WA	45	Fireball Fireworks, Clearwater, FL
15	Atlas Importers, Inc., Marion, SC	46	Fireworks & More, dba Fireworks Outlet, Baldwin, WI
16	Atlas PyroVision Entertainment Group, Inc., Jaffrey, NH	47	Fireworks Empire, Afton, TN
17	Atomic Fireworks Inc. of Arkansas, West Memphis, AR	48	Fireworks Fanatics LLC, Wright City, MO
18	B.J. Alan Company, Youngstown, OH	49	Fireworks Importing, Inc., St. Joseph, MO
19	Bada Boom Fireworks, Blakeslee, PA	50	Fireworks of Alabama, Inc., Adamsville, AL
20	Bellino Fireworks Inc., Papillion, NE	51	Fireworks Over America, Springfield, MO
21	Bethany Sales Co. Inc., Bethany, IL	52	Flash Fireworks, Derby, KS
22	Big's Fireworks LLC, Edgewood, TX	53	Flashing Thunder Fireworks, Mitchell, IA
23	Boom Town Fireworks, Inc., Dyer, IN	54	Flying Phoenix Corp., Riverton, WY
24	Brick House Imports LLC, Marysville, WA	55	Four Seasons Fireworks/Darrow Ventures Inc., Winter Springs, FL
25	Burda Brothers, Inc., Monroe, MI	56	Freedom First Fireworks, Chuckey, TN
26	Burt's Fireworks, Inc., Eagleville, MO	57	Galaxy Fireworks, Inc., Tampa, FL
27	Capital Pyro LLC, Taylorville, IL	58	Garrett's Worldwide Enterprises, LLC, Eudora, KS
28	Cassorla Bros, Inc., Battle Mountain, NV	59	Generous Jerry's F.W. Inc., Grand Forks, ND
29	C-H Wholesale Fireworks, Inc., Muskogee, OK	60	Hale Fireworks, LLC, Buffalo, MO
30	Ches-Lee Enterprises, Bastrop, TX	61	Half Price Fireworks Inc., Harrison, OH
31	Coach's Fireworks LLC, Magnolia, TX	62	Hamburg Fireworks Display Inc., Lancaster, OH
		63	Heartland Associates, Columbia, PA
		64	Herbie Famous Fireworks, Inc. T/A South

65	Carolina Distributors, Cherokee Falls, SC	101	Ninja Fireworks Company, LLC, Henderson, NV
66	High 5 Fireworks, Inc., Junction City, OR	102	Norred Fireworks, Roanoke, AL
67	Hisle Enterprises, LLC, Evensville, IN	103	North Central Industries, Inc., Muncie, IN
68	International Fireworks Mfg. Co., Douglassville, PA	104	Nostalgia Pyrotechnics, Inc., Osco, IL
69	Island Fireworks Company, Hager City, WI	105	Olympus Fireworks, LLC, Syracuse, UT
70	J. K. Marketing, LLC, Rexburg, ID	106	P & P Imports Inc., Sparta, MI
71	Jake's Fireworks, Inc., Pittsburg, KS	107	Patriot Fireworks, USA, LLC, Ann Arbor, MI
72	Jake's Over Texas, Nederland, TX	108	Patriot USA, Abilene, KS
73	Johnny Lemas Fireworks, Angola, IN	109	Perk's Fireworks, Inc., Nashville, TN
74	Johnny Rockets Display Company, Highland, IN	110	Power Source, Inc., Bonner Spring, KS
75	Jolly Jacs, LLC, Cheyenne, WY	111	Precision Pyrotechnics, Inc., Wiggins, MS
76	K & L Marketing Inc. dba Big Top Fireworks, Cummings, ND	112	Precocious Pyrotechnics, Inc., Belgrade, MN
77	Ka-Boomers Enterprises, Inc., Wahoo, NE	113	Pyro Planet, Ltd., Zelenople, PA
78	Kellner's Fireworks Inc., Harrisville, PA	114	Pyrotecnic Suppliers, LLC, Henderson, NV
79	Keystone Fireworks & Specialty Sales Co. Inc., Dunbar, PA	115	R. Brown & Company, Missoula, MT
80	Keystone Novelties Wholesale, Lancaster, PA	116	Racine Fireside Corp., Caledonia, WI
81	L.W. Loyd Co., Inc., South Pittsburg, TN	117	Rainbow Fireworks, Inc., Inman, KS
82	Lantis Fireworks, Inc., North Sioux City, SD	118	Rainmaker Enterprises Ltd., Somerset, WI
83	Lew's Fireworks Inc., Watertown, SD	119	Red Rabbit Fireworks LLC, Vancouver, WA
84	Liberty Fireworks Inc. - Craig, MO	120	Red Rose Imports, LLC, Willow Street, PA
85	Liberty Fireworks, Inc. - Great Falls, MT	121	Reeves Boomland, Inc., Benton, MO
86	Lucky Dragon Fireworks, Dearborn, MI	122	Reichenbach Fireworks, Co., Billings, MT
87	Magic in the Sky, LLC, San Antonio, TX	123	RKM Fireworks/St. Evans Inc., Edwardsburg, MI
88	Martin's Fireworks, Manchester, TN	124	Safety 4th Fireworks Inc., Stratton, OH
89	Marv's Fireworks, Grand Island, NE	125	Salish Fireworks, Anacortes, WA
90	Michons Wholesale, Moneta, VA	126	Samrok Inc., Calgary, Alberta, Canada
91	Micronesia Holding Co., LLC, Saipan, MP	127	Sanedsam Inc., Old Orchard Beach, ME
92	Mid-America Distributors, Inc., La Vergne, TN	128	Schneitter Fireworks and Importing Co., St. Joseph, MO
93	Mid-South Imports, Lenoir City, TN	129	Selva's Fireworks, LLC, Everett, WA
94	Mike Killian Wholesale Fireworks, S. Pittsburg, TN	130	Shelton Fireworks, Eagleville, MO
95	Miller Fireworks Co., Inc., Holland, OH	131	Sky Blooms Fireworks, LLC, Lake Lotawana, MO
96	MPI Entertainment Corporation AKA	132	Sky King Unlimited Inc., Port St. Lucie, FL
97	Mr. B Fireworks, Inc., Schulenburg, TX	133	Slay's Fireworks, Many, LA
98	Mr. G's Fireworks, San Benito, TX	134	Southeastern Fireworks, Inc., Birmingham, AL
99	Mr. W. Fireworks, Somerset, TX	135	Sparkle Fireworks, Inc., Ripley, MS
100	Neeley Sales Co., Inc., Greenwood, SC	136	Spirit of '76, Columbia, MO
	Nicholson's Wholesale Fireworks, Kaufman, TX	137	Spring Field Fireworks, Inc., Bluffton, OH
		138	Star Spangled Novelties LLC, Mosinee, WI
		139	Starr Fireworks, Horace, ND

140	State Line Fireworks, Inc., Texarkana, AR	153	TYI Trading LLC, Commerce, CA
141	Stateline Fireworks LLC/Tennessee Alabama Fireworks, South Pittsburg, TN	154	Uncle AL's Seasonal Retail Inc., Ft. Myers, FL
142	Stowers, Inc., Luttrell, TN	155	Utah Grand Finale Fireworks, Pleasant Grove, UT
143	Sun Pacific Trading Co., Honolulu, HI	156	Victory Fireworks, Inc., Ellsworth, WI
144	Superior Fireworks, LLC, Orange Park, FL	157	Vito's Fireworks, Inc., Covington, KY
145	Sydco Enterprises Inc., St. Joseph, MO	158	Wald and Company, Inc., Greenwood, MO
146	The Fireworks Superstore LLC, Hannibal, MO	159	Warpath Corp, Plummer, ID
147	The Rozzi Company, Inc. dba Rozzi, Inc., Love Land, OH	160	Western Fireworks, Inc., Aurora, OR
148	Thunder Fireworks, Tacoma, WA	161	Wild Willy's Fireworks, Papillion, NE
149	Thundercat Fireworks & Pyrotechnic Display Co., Inc., Madison, WI	162	Winco Fireworks International, Inc., Lonejack, MO
150	T. H. Y. & Associates, Inc., Keaau, HI	163	Winco Utah, Evanston, WY
151	Tri-Star Capital Distributors, LLC Brentwood, TN	164	Wolverine Fireworks Display, Inc., Kawkawlin, MI
152	Two Bears Trading, LLC, Tacoma, WA	165	Zenith Specialties, L.P., Clinton, MO

CONSUMER FIREWORKS MEMBERS (HONG KONG/CHINA/THAILAND SHIPPERS)

1	Acme Fireworks Co., Ltd.	23	Gate Import and Export Trade of Liuyang Co., Ltd.
2	Ali Fireworks Ltd.	24	Glorious Co.
3	ANCO Pyrotechnics, Ltd.	25	Guangzhou Holiday Import & Export Co., Ltd.
4	Asia Pyrotechnics Inc.-Guangzhou Office	26	Hefung Fireworks Co., Ltd.
5	Babytiger Fireworks Imp.&Exp. Ltd., Co.	27	Hong Kong Bravo Fireworks Co., Limited
6	Beihai Fisherman Pyrotechnics, Inc.	28	Hop Kee Pyrotechnics
7	Beihai Kylin Fireworks Co., Ltd.	29	Hua Hui Fireworks Manufacturing Co. Ltd.
8	Brothers Pyrotechnics, Inc.	30	Hunan Liuyang Global Import & Export Trade Co., Ltd.
9	C & L Int'l Industrial Co., Ltd.	31	Hunan Liuyang Worldwide Fireworks, Co., Ltd.
10	Changsha Fortune Fireworks Trading Co., Ltd.	32	Hunan Mega Imports & Exports Trading Co., Ltd.
11	Changsha Royal Import & Export Co., Ltd.	33	Hunan Top and Ideal Trading Development Co., Ltd.
12	Changsha Xinhui Fireworks Import & Export Co., Ltd.	34	Hunan Vanguard Business Development Co., Ltd.
13	Changsha Year Import & Export Co., Ltd.	35	Hunan Welldone Fireworks Co. Ltd.
14	China DIY Marketing Ltd.	36	Hunan Winwell Import & Export Trading Co., Ltd.
15	China National Samkwong Fireworks Co. Ltd.	37	Inter-Oriental Fireworks (HK) Limited
16	China Skysong Fireworks Co., Ltd.		
17	Chinasky Pyrotechnics Limited		
18	Dancing Fireworks Group		
19	Deqili Trade (Hepu County) Co., Ltd.		
20	Dracon Trading Ltd.		
21	Forward Fireworks Co., Ltd.		
22	Fox Fireworks Ltd.		

38	Jiangxi Changshan Exporting Fireworks Manufacture Co., Ltd.	67	Liuyang Xiaohe Fireworks Mfg. Co., Ltd.
39	Jiangxi Dahlia Trade Co., Ltd.	68	Liuyang Yihelong Trade Co., Ltd.
40	Jiangxi Golden Steed Fireworks & Firecrackers Co., Ltd.	69	Liuyang Yongfa Industry Co., Ltd.
41	Jiangxi Panda Fireworks Co., Ltd.	70	Oasia International Ltd.
42	Jiangxi Ping Xiang Dancing Red Devil I&E Co., Ltd.	71	Omni Trading Co.
43	Jiangxi Province Red Horse Fireworks Co., Ltd.	72	Ping Xiang Qi Sheng Imp & Exp Co., Ltd.
44	Jiangxi Wanzai Golden Peak Corporation	73	Po Sing Pro Pyrotechnics Ltd.
45	Legend Fireworks, Inc.-Changsha	74	Pyro Formex, Inc./Golden Bear Fireworks, Inc.
46	Liuyang Candour Fireworks Co., Ltd.	75	Pyromooi Fireworks Ltd.
47	Liuyang Fireworks Limited	76	Pyro Pro Co., Ltd.
48	Liuyang Flying Dragon Fireworks Co., Ltd.	77	Red Eagle Industrial & Trade Co., Ltd. Hebei
49	Liuyang Flying Eagle Fireworks Co., Ltd.	78	Shangli Jiali Import & Export Trade Co., Ltd.
50	Liuyang Fuxiang Fireworks Group Co., Ltd.	79	Shangli Tongle Trading Co., Ltd.
51	Liuyang Goldenkey Trade Co., Ltd.	80	Shiu Fung Fireworks Co., Ltd.
52	Liuyang Hengtai Fireworks Trading Co., Ltd.		Shogun Pyrotechnics Ltd.
53	Liuyang Jiasheng Fireworks Co., Ltd.	81	Standard Fireworks China Ltd.
54	Liuyang Jinkou Rising Import & Export Trading Co., Ltd.	82	Sunlight China Products Ltd.
55	Liuyang Jinsheng Fireworks Co., Ltd.	83	Sunshine Promotion Product Company
56	Liuyang Jumbo Trading Co., Ltd.	84	Thunder Trading Co., Limited
57	Liuyang Kesheng Trading Co., Ltd.	85	Titan Fireworks Limited
58	Liuyang Kongsun Fireworks Exp. Trading Co., Ltd.	86	T-Sky International Group Co., Limited
59	Liuyang Leping Import & Export Co., Ltd.	87	United Pyrotechnics USA Inc.
60	Liuyang Mandarin Fireworks Co., Ltd.	88	Wanzai Century Import & Export Co., Ltd.
61	Liuyang Mei-Mei Fireworks Trading Co., Ltd.	89	Wanzai Color Trading Co., Ltd.
62	Liuyang Miracle Import & Export Trading Co., Ltd.	90	Wanzai Hongrui Trade Co., Ltd.
63	Liuyang Pyroshine Fireworks Co., Ltd.	91	Win Da Hong (HK) Co., Ltd.
64	Liuyang Qingtai Export Trade Co., Ltd.	92	Worldwide Exporting Limited
65	Liuyang Raging Bull Imp. & Exp. Co., Ltd.	93	Wukong Fireworks Ltd.
66	Liuyang Xiangguang Fireworks Trading Co., Ltd.	94	Yichun Fenghua Import & Export Co., Ltd.
		95	Yuen Loong Hong Firecrackers Ltd.
		96	Pacific Pyro Company Limited (Thailand)

GENERAL MEMBERS

- | | | | |
|---|--|---|---|
| 1 | American Pyrotechnics Association,
Bethesda, MD | 4 | Hua Yang Transportation Co., Ltd.,
Shanghai, China |
| 2 | Drayton Insurance Brokers, Inc.,
Birmingham, AL | 5 | The Creadore Law Firm, P. C.,
New York, NY |
| 3 | Hong Kong Pyrotechnics Association,
Hong Kong | | |

DISPLAY FIREWORKS MEMBERS (U.S. IMPORTERS)

- | | | | |
|---|---|----|---|
| 1 | Alonzo Fireworks Display, Inc.
Mechanicville, NY | 10 | Lew's Fireworks, Inc., Watertown, SD |
| 2 | Ammo Hut Productions, Inc.,
Claremore, OK | 11 | Magic in the Sky, LLC, San Antonio, TX |
| 3 | Arthur Rozzi Pyrotechnics, Inc.,
Maineville, OH | 12 | Melrose Pyrotechnics, Inc., Kingsbury, IN |
| 4 | Atlas Pyro Vision Entertainment Group,
Inc., Jaffrey, NH | 13 | Pyro Shows, Inc., La Follette, TN |
| 5 | Central States Fireworks, Inc., Athens, IL | 14 | Pyro Spectaculars, Inc., Rialto, CA |
| 6 | Fireworks by Grucci, Brookhaven, NY | 15 | Pyrotecnico, New Castle, PA |
| 7 | Hamburg Fireworks Display Inc.,
Lancaster, OH | 16 | RES Specialty Pyrotechnics,
Belie Plaine, MN |
| 8 | J&M Displays, Inc., Yarmouth, IA | 17 | Starfire Corporation, Carrolltown, PA |
| 9 | Kellner's Fireworks Inc., Harrisville, PA | 18 | Western Enterprises, Inc., Carrier, OK |
| | | 19 | Wolverine Fireworks Display, Inc.,
Kawkawlin, MI |
| | | 20 | Zambelli Fireworks, New Castle, PA |

DISPLAY FIREWORKS MEMBERS (HONG KONG/CHINA SHIPPERS)

- | | | | |
|---|---|----|---|
| 1 | An Ping County Fireworks General
Factory | 8 | Hunan Cereals, Oils and Foodstuffs
Import & Export Group Co., Ltd. |
| 2 | Babytiger Fireworks Import &
Export Ltd., Co. | 9 | ICON Pyrotechnics International Co., Ltd. |
| 3 | Cenxi Wahyee Advanced Fireworks
Factory | 10 | Inter-Oriental Fireworks (HK) Ltd. |
| 4 | Dancing Fireworks Group | 11 | Jiangxi Changshan Exporting Fireworks
Manufacture Co., Ltd. |
| 5 | Far East San Luen Fat Trading Ltd. | 12 | Jiangxi Panda Fireworks Co., Ltd. |
| 6 | Glorious Professional Products
Trading Limited | 13 | Jiangxi Province Lidu Fireworks
Corporation Ltd. |
| 7 | Hua Hui Fireworks Manufacturing
Co., Ltd. | 14 | Jiangxi Province Light Industrial
Products I/E Co., Ltd. |

- 
- 15 Jiangxi Wanzai Golden Peak
Fireworks Corp.
 - 16 Liuyang Goldenkey Trade Co., Ltd.
 - 17 Liuyang Jingli Fireworks Trade Co., Ltd.
 - 18 Liuyang Jinsheng Fireworks Co., Ltd.
 - 19 Liuyang Leping Import & Export Co., Ltd.
 - 20 Liuyang Qingtai Export Trade Co., Ltd.
 - 21 Liuyang Sunny Fireworks Trade Co., Ltd.
 - 22 Liuyang Xiangguang Fireworks Trading
Co., Ltd.
 - 23 Nan Chang Xiangtian Imp. & Exp.
Co., Ltd.
 - 24 United Pyrotechnics (USA) Inc.
 - 25 Yung-Feng Firecrackers & Fireworks
Co., Ltd.

THE YEAR IN REVIEW

CPSC PROPOSES METAL POWDER RESTRICTION TO REPLACE “SOUND TEST” FOR AERIAL BREAK CHARGES.

Without question, the most significant development in the fireworks industry in the past year is the recent proposal by CPSC to issue an interpretative rule for determining when break charges in aerial devices are “intended to produce an audible effect”. The rule, published on September 6, 2016, states that any break charge that contains metal powder less than 100 mesh in particle size will be classified as an “audible effect”, or report, and will be limited to 130 milligrams of composition. This clarification of what constitutes an aerial report in break charges will replace the CPSC’s sound test, commonly known as the “Ear Test”. The rule is published with a thirty-day comment period which ends October 6, 2016. AFSL encourages all industry members to provide comments to CPSC and will provide a “model” comment to members within the next two weeks. For additional details regarding the interpretative rule, please see the article from AFSL General Counsel, Quin Dodd in Counsel’s Corner, on page 20 of this booklet.

RELOADABLE SHELL STANDARD MODIFIED TO ADDRESS RASH OF DEATHS AND INJURIES.

During the past two years, there has been a surge in deaths and severe injuries associated with reloadable shell devices. Most of the incidents have resulted from consumers firing the devices from the top of or above their heads or from the chest. AFSL has investigated ten incidents of consumers reportedly being killed or severely injured in this manner within the past eighteen months. All incidents where the type of product involved is known by AFSL appear to be related to cylindrical-shaped (canister shells). While this clearly is gross misuse of the product, the AFSL Standards Committee looked at options for reducing the potential for such incidents to occur.

AFSL has conducted three different studies of reloadable tube aerial shell devices, including measuring the recoil force generated when the devices functioned normally (placed on the ground) and while suspended in the air. The studies also measured forces associated with the devices when fired from the tube the correct orientation and when fired in the “up-side down” orientation. Information collected during the AFSL investigations indicate that in at least some instances, the shells to have been placed up-side down in the launch tubes when the incidents occurred.

After reviewing the test data, the Committee concluded that the data does not support a reduction in the total pyrotechnic composition weight for canister-type reloadable shells. However, the Committee recommended three modifications to the Standard for Reloadable Tube Aerial Shell Devices, as described below. The Committee also is continuing to explore other options, including a performance standard to prevent up-side down insertion of the shell into the launch tube, additional cautionary labeling, shell designs that allows the shell to perform properly regardless of orientation, and public education efforts, as a means of further addressing the injuries associated with consumer misuse of the devices.

A. Modification #1 – Requirement for Both an Orienting Loop and Shell Wrapper on all Shells to Maintain Correct Orientation.

Under the current Standard, the use of a shell wrapper or other means of securely maintaining correct Shell orientation is permitted in lieu of an orienting loop for cylindrical-shaped (canister) shells. The Committee concluded that the use of both an orienting loop and shell wrapper for both cylindrical-shaped and spherical shaped shells will reduce the likelihood that consumers will load the shell into the launch tube up-side down. The following language was added to the reloadable shell standard:

*“Section 2-1.11.6 Each shell must include **both** an orienting loop that is securely attached to the top of the Shell **and** a Shell wrapper or other means of securely maintaining correct Shell orientation”.*

B. Modification # 2 -- Shell length for Canister Shells.

While the CPSC and AFSL limit the diameter of shells to 1.75 inches, there is no limit on the overall length of canister shells. Based on a review of products currently in the market, the Committee and determined that while the “typical” length of the shells is approximately 4 inches, several models also are being marketed in 5 inch and 6 inch lengths. The Committee believes that limiting the overall length of canister style shells will prevent the development of more powerful shells in the future and thereby reduce the potential for severe injuries and deaths from such products. The following language was added to the reloadable shell standard:

“2-1.11.4 Individual Shells that are of cylindrical or other non-spherical shape must not exceed 101.6mm (4 inches) in total length.”

C. Modification #3 – New Cautionary Labeling Requirement.

In an effort to further educate consumers on the dangers of using reloadable shell devices in other than the intended manner, the Committee developed an additional cautionary label for all reloadable tube aerial shell devices (both spherical and cylindrical- shaped devices) to include the following language:



For purposes of determining the correct placement, prominence and conspicuousness of the warning label, AFSL provides the following guidance:

1. The entire top (mouth) surface areas of the tube must be treated as the principal display panel for purposes of determining the appropriate type size. AFSL requests that the label be

designed so that it is fully readable from the top of the tube without having to turn the tube in any other orientation to read any part of the label.

2. The “danger” triangle should be printed in yellow with a black border, consistent with the international symbol for “danger”, which it represents. The height of the triangle must be a minimum of 16/64” and must be an equilateral triangle.
3. The Signal word “Danger” must be printed in a minimum type size of 8/64”.
4. The remainder of the wording must be printed in a minimum type size of 4/64”.
5. The background of the label must be white and the wording of the labeling (except for the yellow triangle), must be in bold, black or other similarly dark type.
6. The warning label must not include any other artwork, graphics, logos or other designs so as not to detract from the message being presented.
7. The warning label must be printed on an adhesive label that can be securely attached over the mouth of the launcher tube and that must be removed by the consumer before inserting a shell into the tube.

EFFECTIVE DATE: AFSL began testing reloadable tube aerial shell devices for compliance with the above referenced requirements on **September 1, 2016.**

RESTRICTIONS LOOSENED ON DESIGNS FOR SPECIALTY ITEMS.

The AFSL Standards Committee revised the definition of the AFSL category of products known as Specialty Items in the AFSL Standard. The standard restricts the design of the devices to prevent them from being confused with toys or other items that are appealing to children. Since the standard was established in 2004, there has been a good deal of confusion among the manufacturers as to which designs were “appealing to children” and which were not.



Subject to Specialty Standard.



Subject to Fountain Standard.

The Committee revised the definition in an effort to provide more concrete guidance on this question. The new definition reads as follows, with the changes to the language highlighted in red:

“1-2.10 Specialty Item – A fireworks item that resembles in physical **shape and form** articles commonly

*recognized as appealing to **or intended for use by** children. This includes, but is not limited to, devices that resemble cartoon characters, toys, vehicles, boats, and animals and that are designed to produce limited visible audible, or motion effects”.*

The Committee concluded that in order to be prohibited, the devices must have both the physical shape and the physical form (size, etc.) of a product appealing to children, such as toys, boats, cars, animals, etc. The mere fact that a device has a photograph or graphic on the label or some physical features, such as eyes, etc., should not cause the Specialty item to be failed under the standard. The change has helped to clarify the intent of the standard for the factories, with fewer items being rejected by AFSL under this provision. This change to the definition went into effect in October 2015.

AFSL MODIFIES TESTING PROCEDURE FOR FUSE BURN TIME.

During the past several years, there has been an increase in the number of product failures for non-complying fuses, including long fuse burn time, short fuse burn time, fuse side ignitions and fuse attachment. These failures show up in the AFSL testing program in China and also are reported by CPSC as one of the primary reasons they fail samples that previously have been tested by AFSL. In 2015 fuse burn time failures accounted for 37% of all fireworks failures reported by CPSC in products previously tested by AFSL.

After investigations the reasons, AFSL learned that the China government has now centralized the manufacturing of fuses to only three companies and all factories are purchasing their fuses from those manufacturers. Unfortunately, given the option to choose the quality of fuses they use, many factories are purchasing less expensive, thinner fuses with less protective coating. The result is an unreliable burn rate in the fuses, and a greater tendency to dry out or absorb moisture during the shipping process.



In an effort to reverse the patterns of failures, AFSL has tightened its testing procedure for fuse burn time by requiring that all fuses must burn between four and eight seconds (Roman Candles must burn between four to eleven seconds) to receive AFSL certification. Both the AFSL Standards and the CPSC regulations state that fuses must burn between 3 seconds and 9 seconds. By shaving one second off each end of the requirement during testing, AFSL expects to reduce the number of cases where products are passed by AFSL in China, only to be failed by CPSC once they arrive in the U.S.

While it is too soon to measure the impact on CPSC test results, AFSL has seen an increase in the number of fuse burn time failures recorded in its program in China.

Assuming that factories begin to use a better quality, more reliable fuses in their production, AFSL will revert back to testing fuses using the 3 to 9 second requirement in the Standards.

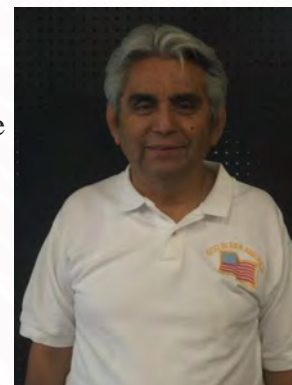
AFSL HONORS RETIRING DIRECTOR AND STANDARDS COMMITTEE MEMBER FOR LONG TERM SERVICE.



AFSL presented Distinguished Service Awards to two long term members of the organization who retired during the past year. Chi-Kay Cheung of Yuen Loong Hong Firecrackers received the award for 25 years of service on the AFSL Board prior to his retirement in October 2015. Chi-Kay is one of the original directors of AFSL who joined the Board when AFSL was incorporated in March 1989. He is one of the six members known as the “Shekou Six” that conducted the factory training and testing program that led to the establishment of AFSL. The Shekou Six, headed by Joel Anderson of TNT Fireworks, traveled to Shekou, China in July 1988, to assist the factories to evaluate their products for compliance with the CPSC fireworks regulations. More than 1000 products from factories throughout China were tested during the ten-day exercise. As a follow-up to that project, AFSL was incorporated in March 1989.

Chi-Kay also was very influential in persuading the factories and shippers in China to participate in the AFSL program, and continued to serve as an invaluable liaison between the AFSL Board and the China Fireworks industry throughout his tenure on the Board. While he retired from the Board in October 2015, Chi-Kay remains active in the industry as a supplier to the U.S. industry. He also continues to serve as an advisor to the AFSL Consumer Fireworks Standards Committee. AFSL President, Michael Ingram, will present the award to Chi-Kay at the AFSL General Membership meeting in New Orleans, LA on September 19, 2016.

Jesse Barrera retired from the AFSL Standards Committee in February 2015 after serving 26 years on the Committee. He was one of the original industry representatives appointed to the Committee by the Board of Directors. He was a representative for the retailer segment of the fireworks industry. Jessie was deeply involved in the drafting of the first version of the AFSL Standards and has worked on every subsequent version. He credits the AFSL Standards and testing program for the growth in the industry and for making fireworks safer today than they have ever been.

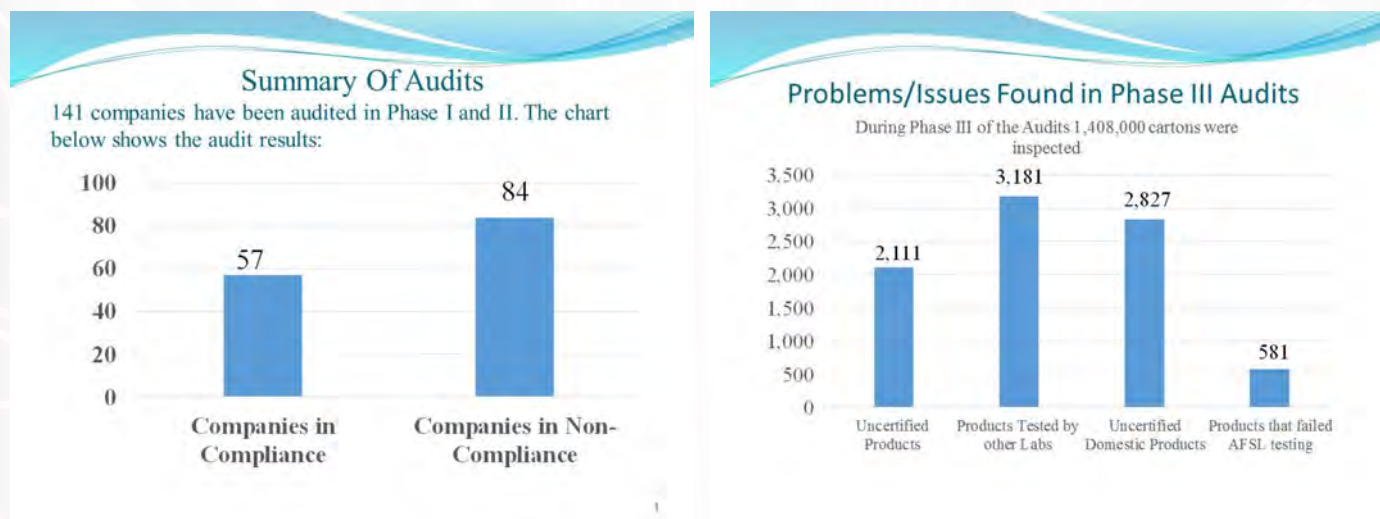


Jesse has worked in the fireworks industry for more than thirty years. He began working for Acme Fireworks, in River Grove, Illinois, where he gained his unique knowledge of the fireworks retailing business. He currently is working in fireworks retailing for BJ Alan Company. Jessie and his lovely wife, Gladys are the proud parents of 2 children, 6 grandchildren and 2 great grandchildren.

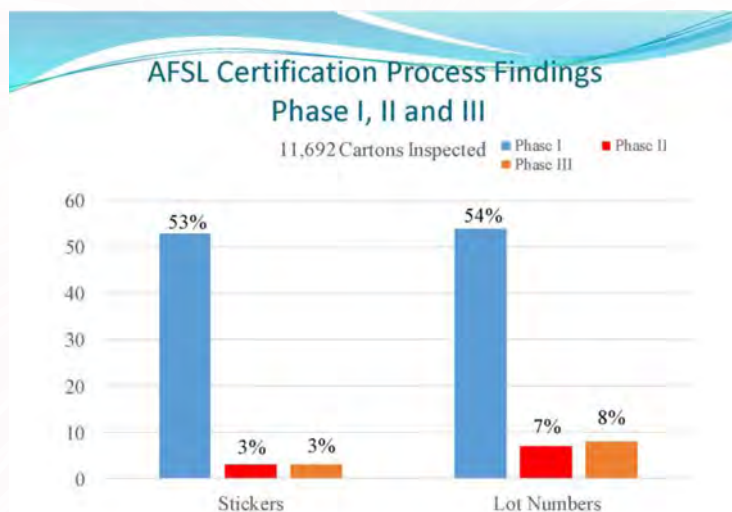
RE-AUDITS UNDERWAY FOR AFSL IMPORTERS.

AFSL is continuing its program of auditing the warehouses of U.S. importer members to assist them in complying with all AFSL requirements as well as providing guidance on both CPSC and DOT mandatory regulations. The program also monitors the correct application of AFSL stickers and Lot Identification stamps by AFSL’s contract testing laboratory, Bureau Veritas.

During the first round of audits (Phase I and II), AFSL found that a significant number of companies were not fully in compliance with program requirements. As a result, companies that had problems during the first round of audits are being re-audited (Phase III) to determine if problems have been corrected.



The audit results show significant improvement in the performance of BV technicians in the properly certifying cases after Lots have been tested and found to comply. This is the result of increased training by AFSL for the technicians.



Consistent with the original program plan, no disciplinary actions have been taken against importers that were in violation of program requirements during the first round of audits. Under the second round of audits, any companies that continue to violate terms of their agreements with AFSL will be subject to sanctions determined by the Board of Directors. Actions that could lead to sanctions include not having all shipments tested by AFSL, using other test labs to test products, or importing Lots that had been failed by AFSL.

AFSL HOLDS GENERAL MEETING AT NFA EXPO.



AFSL hosted a General Membership Meeting for members during the NFA Expo in Grand Rapids, MI on September 8, 2016. The meeting included an update on AFSL's activities during the past year by Executive Director, John Rogers. He congratulated the industry on having a record year for the number of products tested by AFSL in China in 2015 and noted that the preliminary data for the first half of 2016 indicates that 2106 should also be a very good year for the industry. John also discussed several modifications to the AFSL Standards, including new requirements for reloadable shell devices.

Jerry Wingard, AFSL's Auditor, presented the results of his ongoing audits of U.S. members' warehouses, reporting that he is continuing to find violations of the AFSL testing program agreements, even in cases where the importer previously has been audited.

AFSL General Counsel, Quin Dodd provided a summary of CPSC's recently published proposed interpretive rule which would replace the agency's "Sound Test" for break charges with a requirement that any break charge containing metal powder with a particle size of less than 100 mesh would be considered an aerial report, subject to a 130 mg limit.

The meeting also included voting for candidates for the AFSL Board of Directors. While ballots were collected during the meeting, the results of the election will not be announced until voting is completed at the second AFSL General Membership meeting in New Orleans, LA on September 22, 2016.



Counsel's Corner
Quin D. Dodd, Esq.
General Counsel to the AFSL



2016 has proven thus far to be one of if not the most active years at the U.S. Consumer Product Safety Commission on consumer fireworks regulations since the inception of the agency. This article briefly describes those activities and what fireworks manufacturers, shippers and importers may expect in the coming months.

In December of 2015, the agency staff issued a host of proposed changes to its existing, mandatory fireworks standards that would significantly increase the content, labeling and performance requirements of most consumer fireworks, bringing them up-to-date and more in line with existing AFSL and DOT/APA safety standards. Most recently, on September 6, 2016, the agency published a proposed interpretation of the “audible effects” standard (16 CFR 1500.17(a)(3)) that would effectively replace the current “ear test” method used by the CPSC to determine whether primarily aerial fireworks are intended to produce an “audible effect,” contrary to the standard. Instead, the CPSC would adopt the current AFSL/APA ban on fine mesh metals in the burst/break charge composition, where the break charge exceeds 2 grains (130 mg) and the metal particles (generally aluminum and/or magnalium) are less than 100 mesh (149 microns) in size. Adoption of this new interpretation of “intended to produce an audible effect” by the CPSC would accomplish one of AFSL’s top federal regulatory priorities over the last several years.

This interpretive rule (“statement of policy”) is now out for public comment, which closes on October 6. AFSL strongly encourages its members and other interested companies and individuals to provide positive comments on the proposal by going to www.regulations.gov and entering “CPSC-2016-0020” in the search box. AFSL supports this move by the CPSC because it will finally end the discrepancy often found between AFSL field testing in China and that conducted by CPSC personnel, due to the inherent subjectivity of the ear test and other factors. (Violation of 1500(a)(3) is one of the most frequently cited violations of consumer fireworks imports by the CPSC). However, key issues that remain unresolved are the allowable contamination” level of fine mesh metals in break charge composition and whether the test method approved by the agency will be appropriate for the field testing conducted by AFSL in China and elsewhere.

In addition, AFSL understands that the CPSC is close to finalizing its other recommended changes to its fireworks standards. In addition to elimination of the ear test, among the initially proposed changes include:

- Adoption of certain APA 87-1/AFSL limits on total pyrotechnic composition and break charge to effects composition ratios, to include reloadables, mine and shell devices, and sky/bottle rockets;
- Requirement that aerial devices function at apex of flight; not project fragments; and that reloadable tubes remain intact during functioning;
- Revision and addition of various warning label requirements, again to align CPSC standards more closely with APA/AFSL standards; and
- Limiting the current exemption of firecrackers from the composition and other requirements of 15 CFR Part 1507.

A full description of the initially proposed changes may be found at:
[http://www.cpsc.gov/global/newsroom/foia/commissionbriefingpackages/2016/
fireworksrulereviewinformational.pdf](http://www.cpsc.gov/global/newsroom/foia/commissionbriefingpackages/2016/fireworksrulereviewinformational.pdf)

This will no doubt be a year of significant, even dramatic changes for the CPSC with regard to its oversight and regulation of consumer fireworks. AFSL has advocated for and generally supports these changes and believes they will, on balance, continue to increase the safety and therefore the permissible use and enjoyment of this important American industry and segment of consumer products.

Comments or questions regarding this article, or any issue relating to consumer fireworks safety, may be sent to: afslhq@afsl.org.

Quin Dodd is the General Counsel to AFSL. He is an independent attorney practicing in the area of product safety law, and from 2005 – 2008 served as Chief of Staff at the CPSC.



AFSL CHINA TESTING TEAM – 50 MEMBERS STRONG!

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