AFSL General Membership Meeting

Cleveland, OH
October 4, 2018

AGENDA FOR MEETING

I. Report from the Board of Directors
– Michael Ingram, President

II. Election of Directors – John Rogers

III. Financial Report – Tad Trout, Treasurer

IV. Update on CPSC Proposed Rulemaking
– Quin D. Dodd, John Rogers and Chuck Rogers

BREAK

V. Report on Consumer Fireworks Testing Program
– John Rogers, Chuck Rogers and Jerry Wingard

VI. Modifications to AFSL Standards – John Rogers

VII. Election Results – John Rogers

VIII. Questions/Answers

I. Report from the Board of Directors

- Michael Ingram, President

II. Election of Directors

- John D. Rogers, Executive Director

Board of Directors Candidates

a. Consumer Importer/Distributor/Retailer Category:

Vince Bellino – Bellino Fireworks Inc.

Michael Ingram – Fireworks Over America

Daryl Marmon – Wald and Company, Inc.

b. Consumer Shipper Category:

John Mo – Brothers Pyrotechnics, Inc.

III. Financial Report

- Tad Trout, Treasurer

IV. Update on CPSC Proposed Rulemaking

- Quin D. Dodd

John D. Rogers

Chuck Rogers

CPSC Consumer Fireworks Staff-Proposed Final Rule (FR)

- Rulemaking dates back to 2006, began in earnest in 2015:
  - 2015—Statement of Policy interpreting "no audible effect" for aerials to mean no metal powder in break charge--promoted by AFSL and proposed by Commissioner Mohorovic
  - 2016—Broader Notice of Proposed Rulemaking prepared by CPSC staff
  - 2017—Public comments on NPR
- "Staff Package" (including FR and explanation, response to public comments, and other supporting docs) released on 9/27/18 – AFSL summary provided
- CPSC staff-only briefing to Commissioners on proposed FR
- Unclear when final Commission vote will occur

Provisions Retained in the FR

- Adopts AFSL/APA ban on fine mesh metals in aerial break charges (with one percent discretionary allowance for contamination);
  - 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 g of comp;
  - Limits mine and shell devices to 60 g of comp per tube; 20 g of lift charge (for each tube); 200 g/500 g total comp; break charge may not exceed 25% of total comp, exclusive of lift charge;

Provisions Retained in the FR

- Reloadables limited to 60 g of comp per shell; 20 g of lift charge per shell; 400 g total comp per kit; and break charge limit of 25% of total comp, exclusive of lift charge ;
- Lift charges limited to black powder

- Adopts AFSL/APA limit on firecrackers to 50 mg of comp (except for firecrackers used as a component of a rocket);

Provisions Retained in the FR

- 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.).

Provisions NOT Retained in FR

- Comp limits on ground devices (fountains; torches; wheels and chasers), due to insufficient factual evidence for injury prevention;

- Regulatory side-ignition test method (but retains it in the CPSC Testing Manual);

- Allowance for “trace” (0.25%) contamination level for prohibited chemicals;

Provisions NOT Retained in FR

- Prohibition on projected fragments (due to insufficient factual evidence and existence of effective voluntary—AFSL--standard); and

- Prohibition on lead and HCB (due to insufficient factual evidence, namely human exposure data and effective voluntary—AFSL--standard).

Key Staff Responses to Comments

- Level of 2 percent or higher metal powder in break charges would result in excessive energy of aerial devices (CPSC data show a 10 percent “ear test” failure at below 2 percent and 100% failures at 3.5% or higher);

- Regulatory metal powder allowance (vs. “enforcement discretion”) not necessary and since the current AFSL/APA/DOT level is zero, as instrumentation improves, a limit of less than 1% may be justified;

Key Staff Responses to Comments

- Dismisses outright notion that the FR will ban aerials or put many companies out of business entirely (and relies heavily on AFSL/BV test data showing large majority of aerials are currently compliant for its contrary conclusion);

- Also dismisses argument that the FR will not reduce injuries (as well as the sub-argument [by NFA] that how a shell is wrapped and other factors are more significant than metal powder content), and cites number of deaths in recent years attributable to reloadables—20 from 2015 through 2017;

Key Staff Responses to Comments

- Similarly dismisses general alternatives to the FR, including greater public awareness, prevention of misuse, restricting who may buy certain fireworks, deference to state regulation, etc., and specifically rejects a “sound level meter” standard as too subject to testing variability and not correlated to injury likelihood;

- States that (NFA) argument that banning metal powder will result in more hazardous “hybrid” break charge compositions is unsubstantiated;

Key Staff Responses to Comments

- Concludes that economic impact of metal powder ban will be insignificant since most products currently comply and since metal powder is about 3 times more expensive than black powder;
- Asserts that XRF is a reliable test method, even for lighter metals like Al and Mg (and less costly than conducting the "ear test"), although notes that XRF testing to the ban would not be mandatory;
- States as incorrect the assertion that there is significant migration of metal powders from effects, plugs, or lift charges to break charge composition (asserts that contamination doesn't exceed 1%);

Key Staff Responses to Comments

- Rejects AFSL/APA request to specifically allow for XRF variability (error margin) or, alternatively to grant a 0.15 variability allowance, since doing so would be "impractical" and since the 1% discretionary allowance should accommodate instrument variability;

- Rejects argument that a ban on metal powder is unjustified because it cannot be sufficiently correlated to injury prevention, since precise correlation for any fireworks standard is not possible and unnecessary under the Federal Hazardous Substances Act (FHSA);

Key Staff Responses to Comments

- Staff specifically rejects assertions that the metal powder ban and other provisions of the FR do not meet the findings necessary under the FHSA (including citation to a recent federal court ruling striking down a ban on powerful magnets as insufficiently supported by evidence, since that involved the CPSA and not the FHSA).

Key Points from 10/03 Staff Briefing on FR

- WE DO EXPECT A FINAL RULE TO BE APPROVED IN THE NEAR TERM, BUT, Chairman Buerkle asked (directed) staff to "analyze" the very recent NFA submission, purporting to show that break charges with 12.5% metal powder are less energetic than "whistle" or "flash" break charge composition – staff estimates review will take an additional 2 weeks
- Staff admitted it cannot directly correlate metal powder percentage in break charges and likely injury increase, but reiterates that:
  1. Current APA/DOT (87-1) standard and AFSL standards are ZERO; and
  2. Break charge contamination of metals from other sources is not likely above 1% is unlikely

Summary of AFSL Testing

Chuck Rogers

Americas Director – Supply Chain Solutions and Technical Consulting

Bureau Veritas Consumer Product Services

Summary of AFSL Blind XRF Scanner Tests

- 1107 in 2016, 616 in 2017.
- From both Reloadable Tube Aerial Shell Devices and Mine and Shell Devices.
- Samples were selected from normal AFSL testing lots.
- Break charges were removed from products without identifying the product name.
- Samples were numbered, secured and sent to BV office for analysis.

Summary of Member-Requested Tests

- 79 Samples in 2017.

- From both Reloadable Tube Aerial Shell Devices and Mine and Shell Devices.

Testing Procedure

- Test was conducted under the supervision of BV chemical expert and representative from the scanner manufacturer.
- The scanner model is identical to the one which CPSC is using.
- Test procedure followed were identical to those recommended by CPSC.

Summary of Test Results

	Number of Samples	Compliance at 1% Limit	Compliance at 2% Limit
2016	1107	72.7%	80.3%
2017	616	85.6%	86.9%
Company Tests	79	89.9%	93.7%

AFSL Program XRF Pilot

- Pilot will begin 10/4/2018

- Voluntary Program (4 Shippers To Date)
  - Winco
  - Fireworks Over America
  - TNT Fireworks
  - Phantom Fireworks

AFSL Program XRF Pilot

- Two XRF Teams – One in Liuyang and One Floating to Other Areas
- As many samples as possible will be tested but shipments will not be delayed during the pilot
- XRF Results > 2% will be confirmed by wet chemistry
- Upon confirmation product >2% will fail

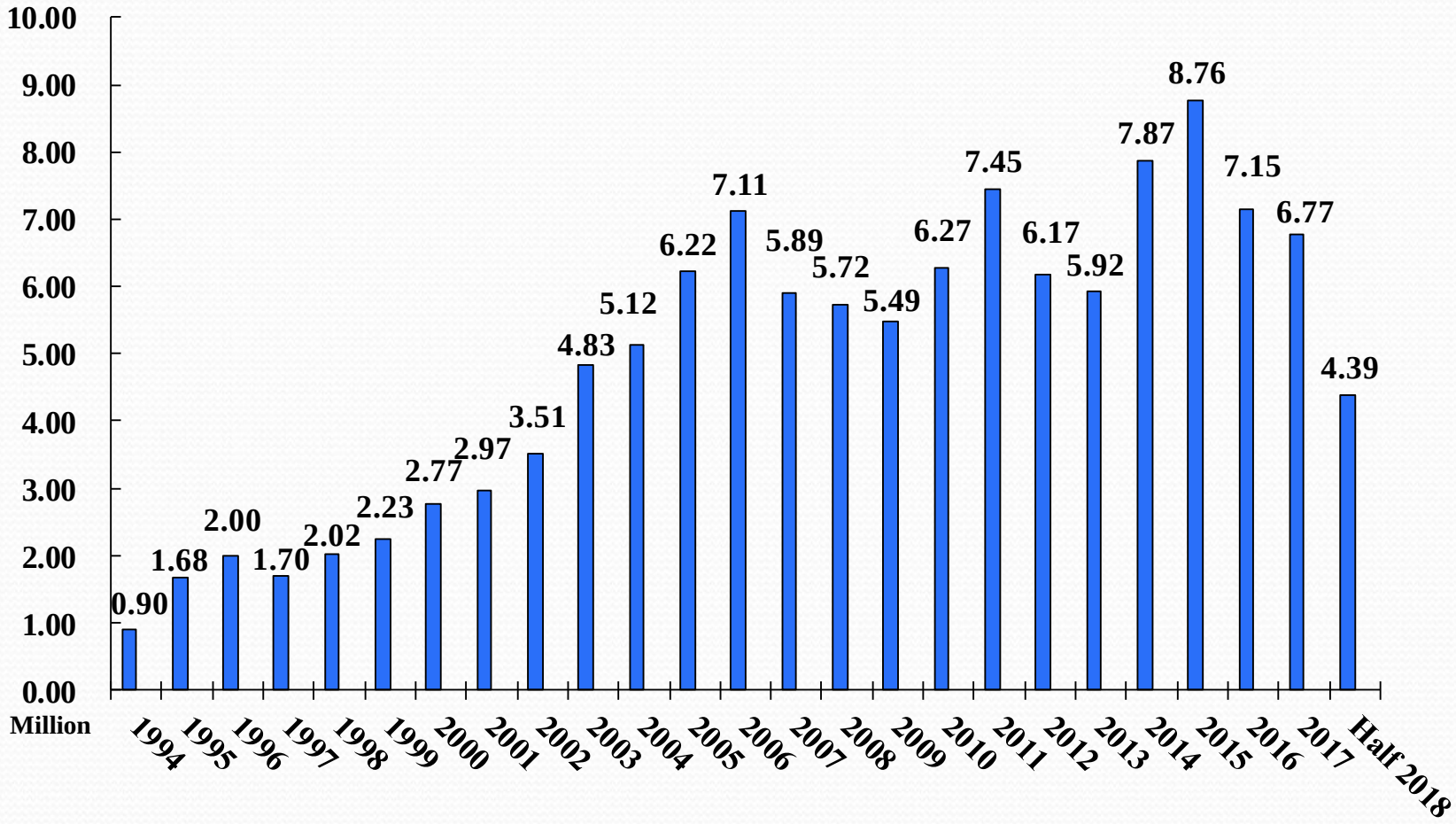
BREAK

V. Report on Consumer Fireworks Testing Program

A. Summary of AFSL Test Results

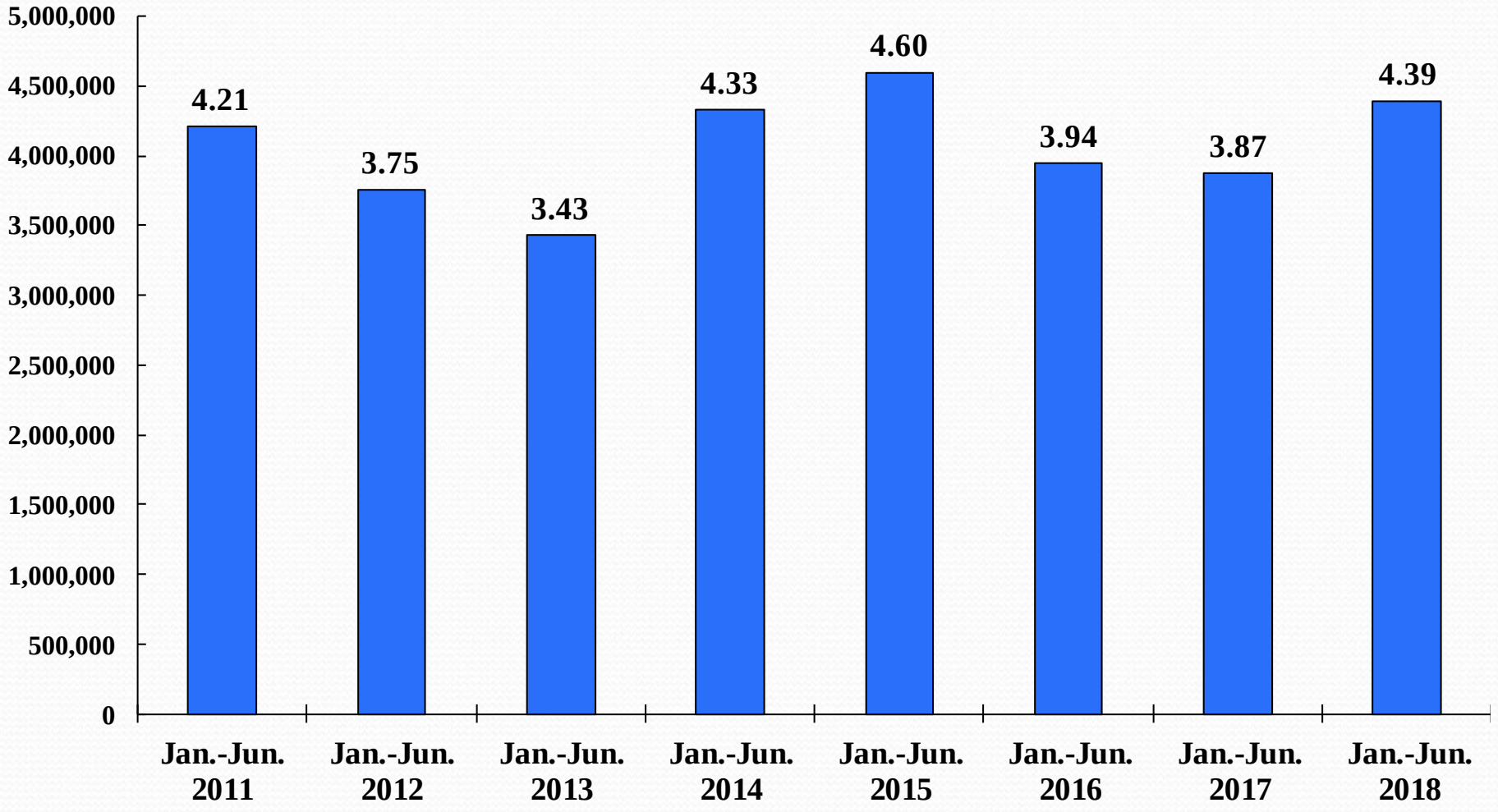
- John D. Rogers, Executive Director

CASES TESTED BY YEAR 1994-Half 2018
Quality Improvement Program

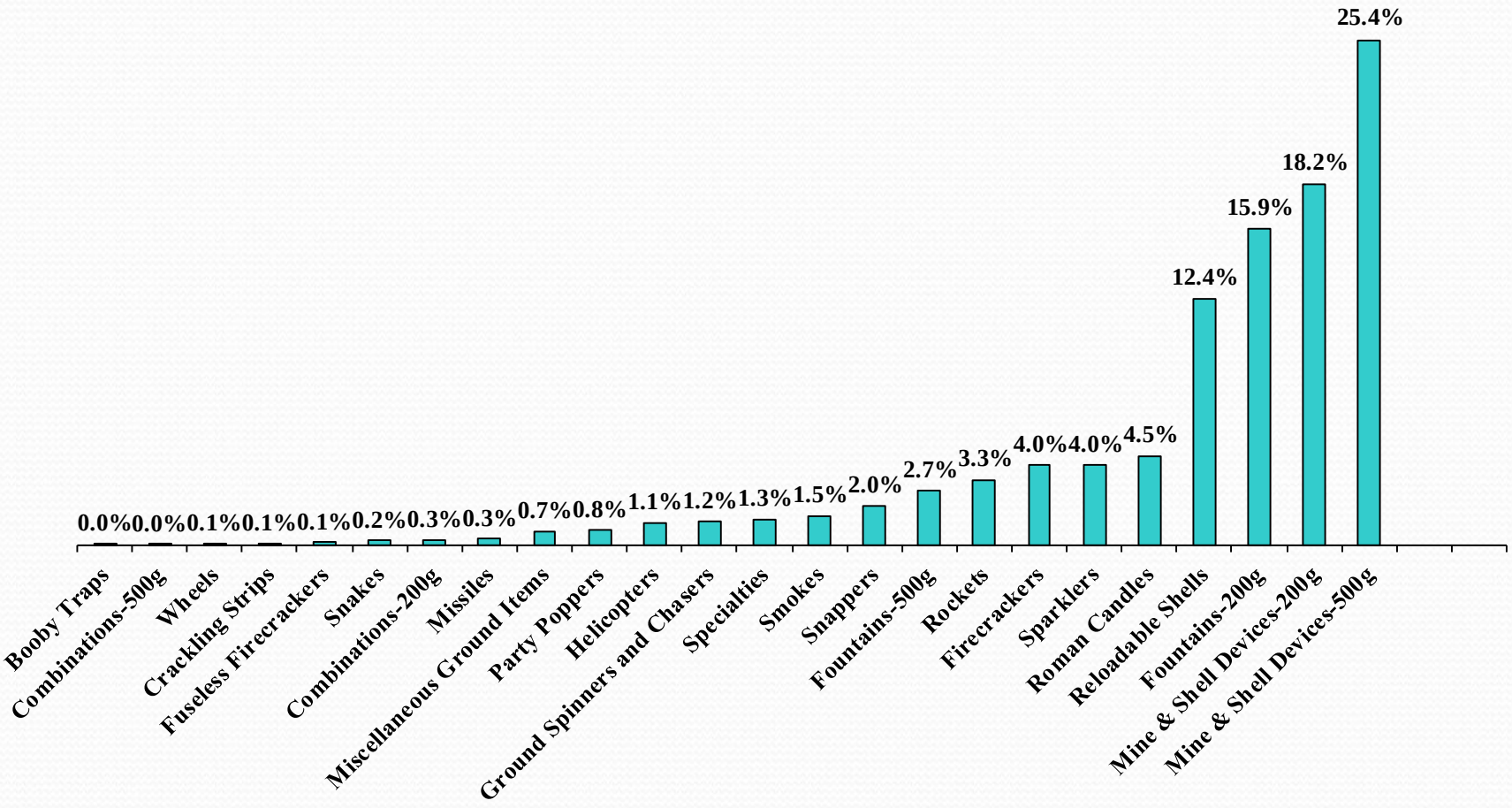


CASES TESTED BY YEAR 2011 - 2018

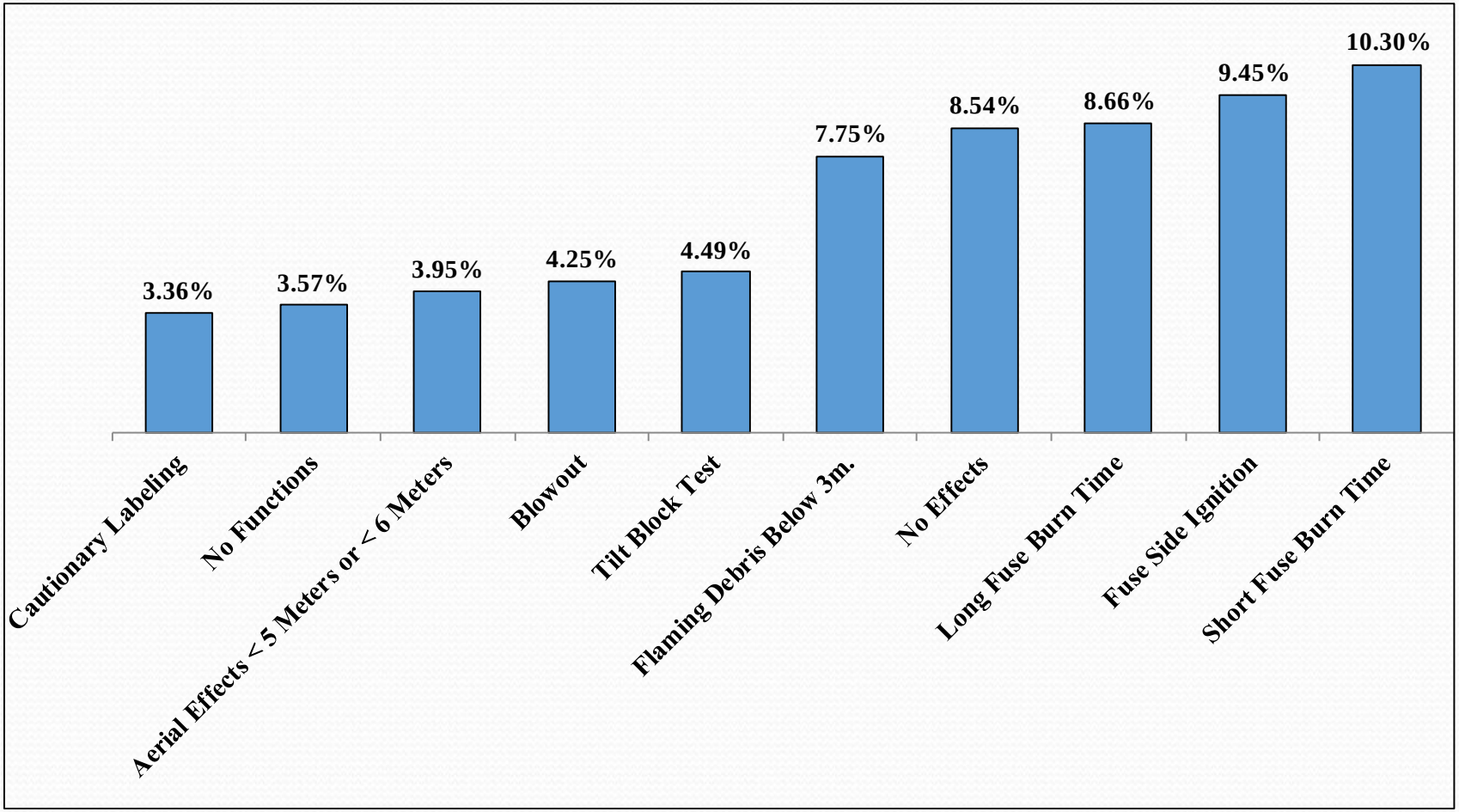
Jan. – Jun.



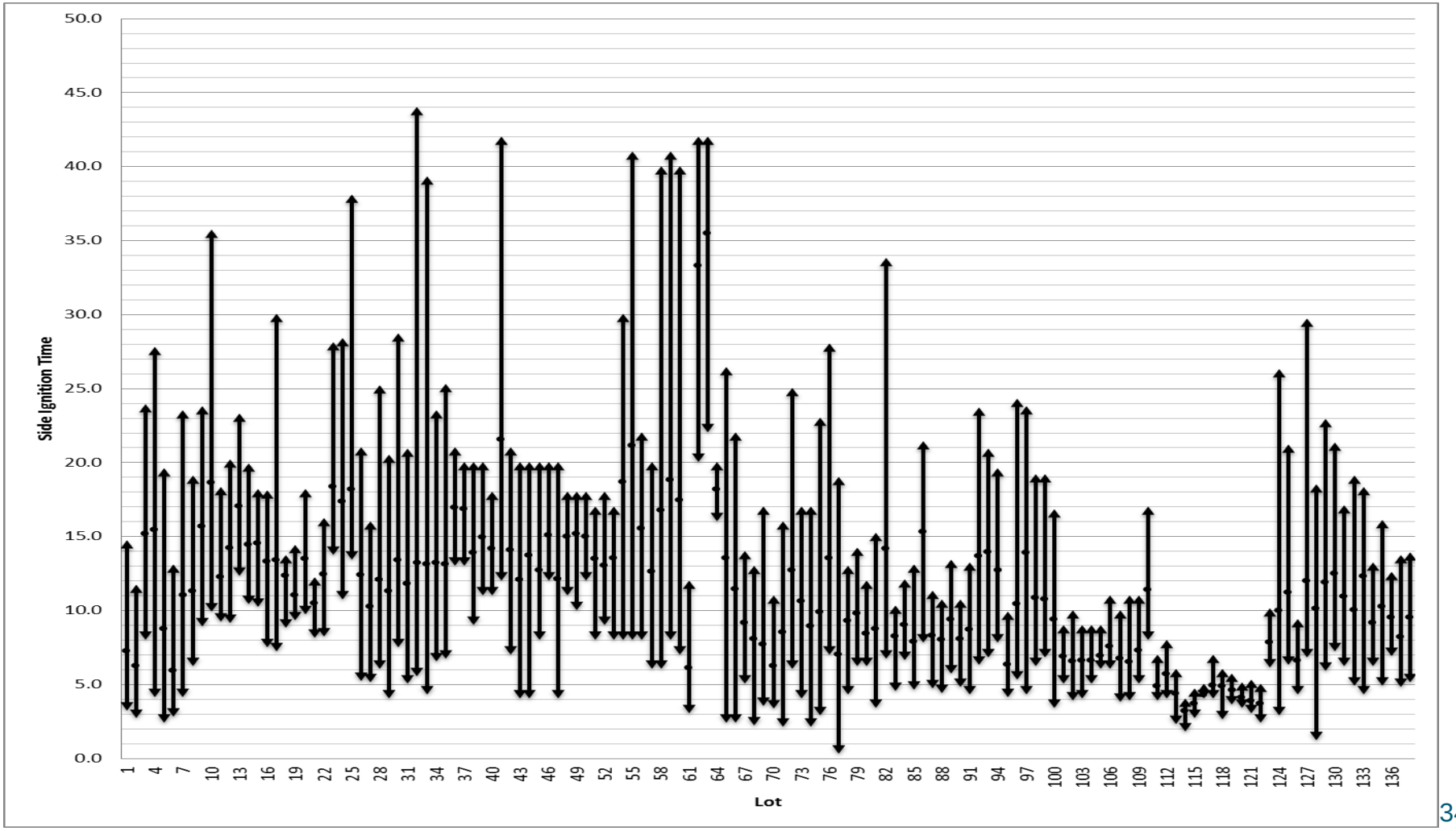
PERCENTAGE TESTING BY PRODUCT CATEGORY HALF YEAR 2018



TOP 10 VIOLATIONS HALF YEAR 2018
Percentage of Total Violations



Side Ignition Study



Video Recording of Fuse Testing

- All testing teams have been equipped with video cameras to record fuse side ignition tests and fuse burn time tests
- The purpose of the video is to assure consistency between technicians and document the results
- Historically changes such as this have resulted in a temporary increase in Aborted Inspections but these have only been temporary

B. Summary of Audits Conducted at Importer Warehouses

- Jerry Wingard, Project Manager

Domestic Audit Results Phase III

- Phase III started on March 12, 2015 with follow-up audits of companies that were not fully in compliance in Phase I and II.

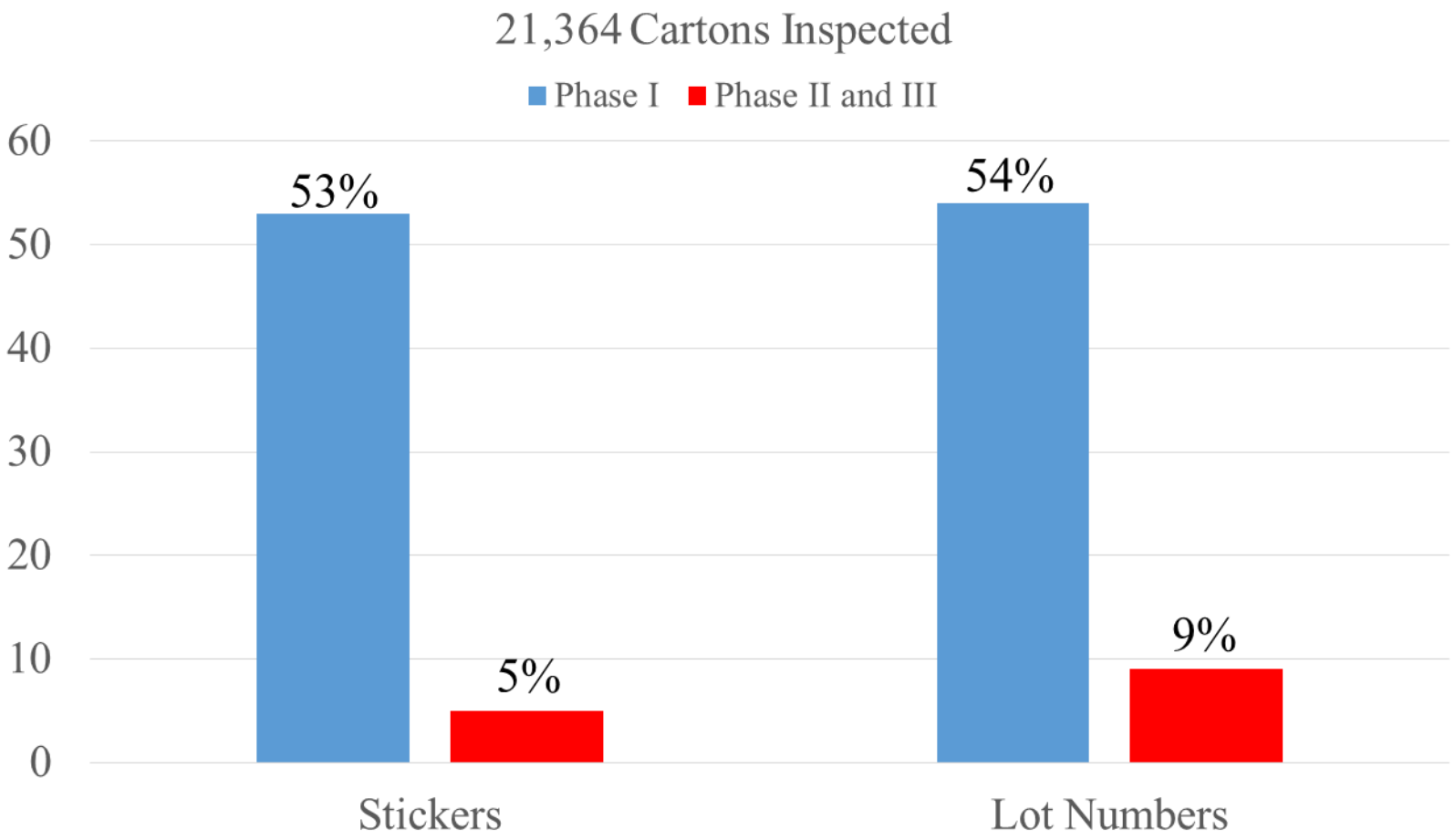
A total of 51 companies have been re-audited:

- 23 Companies had improved with no violations.
- 28 Companies remained the same and still have violations.

Issues found:

- Domestic issues
- Invoices
- Un-certified items
- Items tested by other labs
- Items that had failed AFSL testing

AFSL Certification Process Findings Phase I, II and III



Corrective Actions for Importers

- During the October 1, 2018 meeting, the Board approved corrective actions and suspensions for Importers that had continuing violations during audits.

  - Three Importers will receive letters requesting corrective action plans be submitted and re-audits of their warehouses.
  - Four Importers are bring suspended for refusing follow-up audits or not providing complete information during their audits.

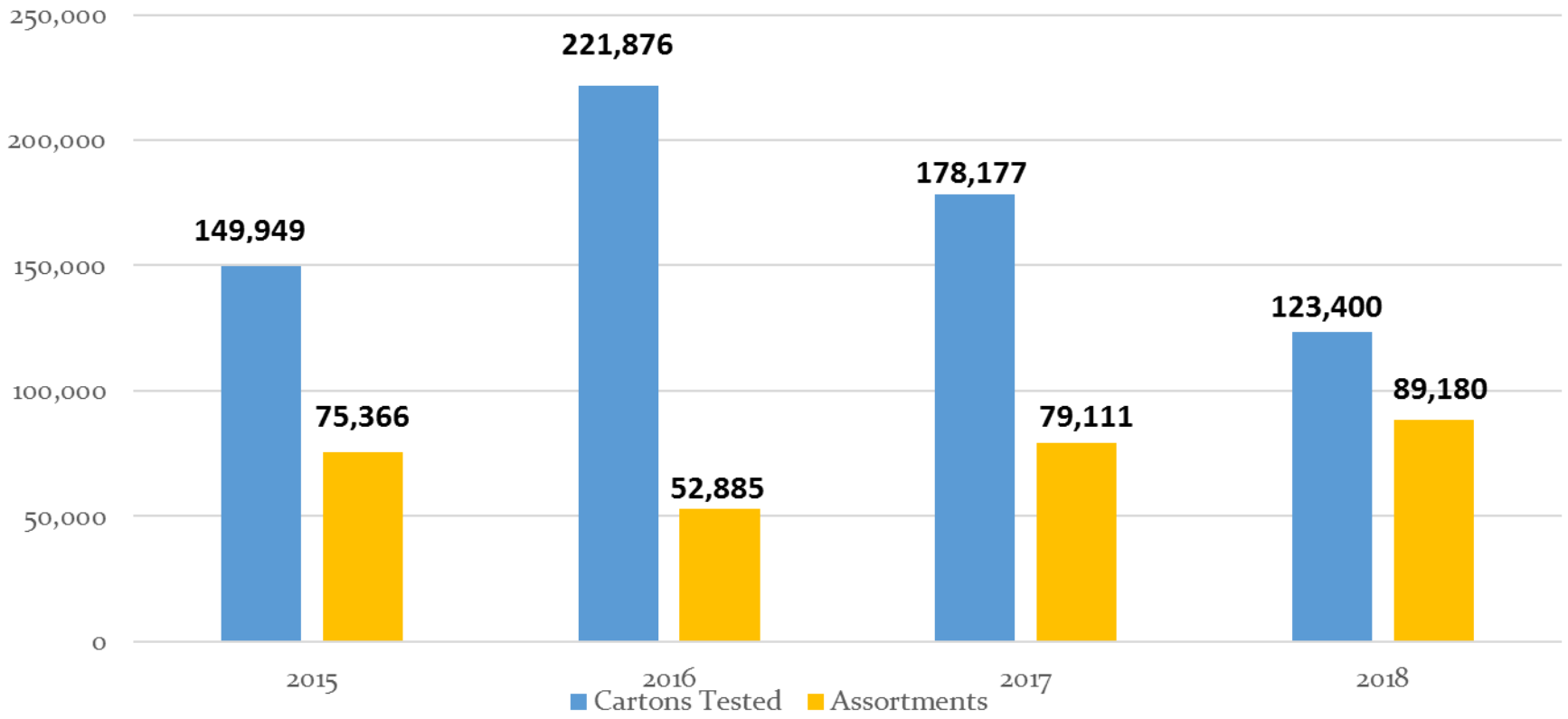
Internet Observations

- In February 2018, AFSL began monitoring members' web sites for compliance with their Importers Agreement.

  - Eleven Company sites advertised products not allowed under AFSL Standards.
  - One company advertised products from a Supplier that is not a AFSL Member.

- Importers are being notified of the issues and corrections are being requested.

NUMBER OF CARTONS TESTED AND ASSORTMENTS CERTIFIED THRU THE DOMESTIC TESTING PROGRAM



Accident Investigations in 2018

In 2018 we have investigated 49 incidents related to fireworks.

Four incidents were fatalities, forty-two were injuries (twenty-seven involved hands and fingers, four involved face and eyes and four were unknown), and seven involved property damage.

Four fatalities involved the following products:

- Three involved Reloadable Tube Aerial Shell Device
- One involved a 3” Display Shell

VI. Modifications to AFSL Standards

- John D. Rogers, Executive Director

1) Standard for Comets, Mines and Shells.

"3-1.3 ~~Any~~ Multiple-tube devices subject to this Standard ~~Aerial Shell or Comet~~ with any tube inside diameter of greater than 2.54 cm (1 inch) must not tip over when shot on a 2-inch thick medium density polyurethane foam pad."

Effective Date: Immediately.

2) Recommendation on Fuse for Fountains.

Delete Section 2-1.10.7 of the Fountain standard, which states: "*~~2-1.10.7 The connecting fuse between tubes must resist side ignition for at least 3 seconds~~*".

Amend Section 2-1.10.3 to read as follows: "*2-1.10.3 ~~All~~ Exposed fuses, including connecting fuses between tubes, must resist side ignition for at least 3 seconds*".

Effective Date: Immediately.

3) Recommendation on Reloadable Canister Shells Design with the Fuse Attached in the Center of the Shell.

Add a note to **Section 2-1.11.7 of the Standard for Reloadable Tube Aerial Shells to read as follows: "2-*1.11.7 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.* *NOTE: If the fuse is securely attached at the center of the top of the shell so that when the shell is held by the fuse, the shell maintains correct orientation, the requirements in this section do not apply".***

Effective Date: Immediately.

VII. Election Results

- John D. Rogers, Executive Director

VIII. Questions/Answers

www.afsl.org

THANK YOU!