NFA CONSUMER AND DISPLAY FIREWORKS SEMINAR

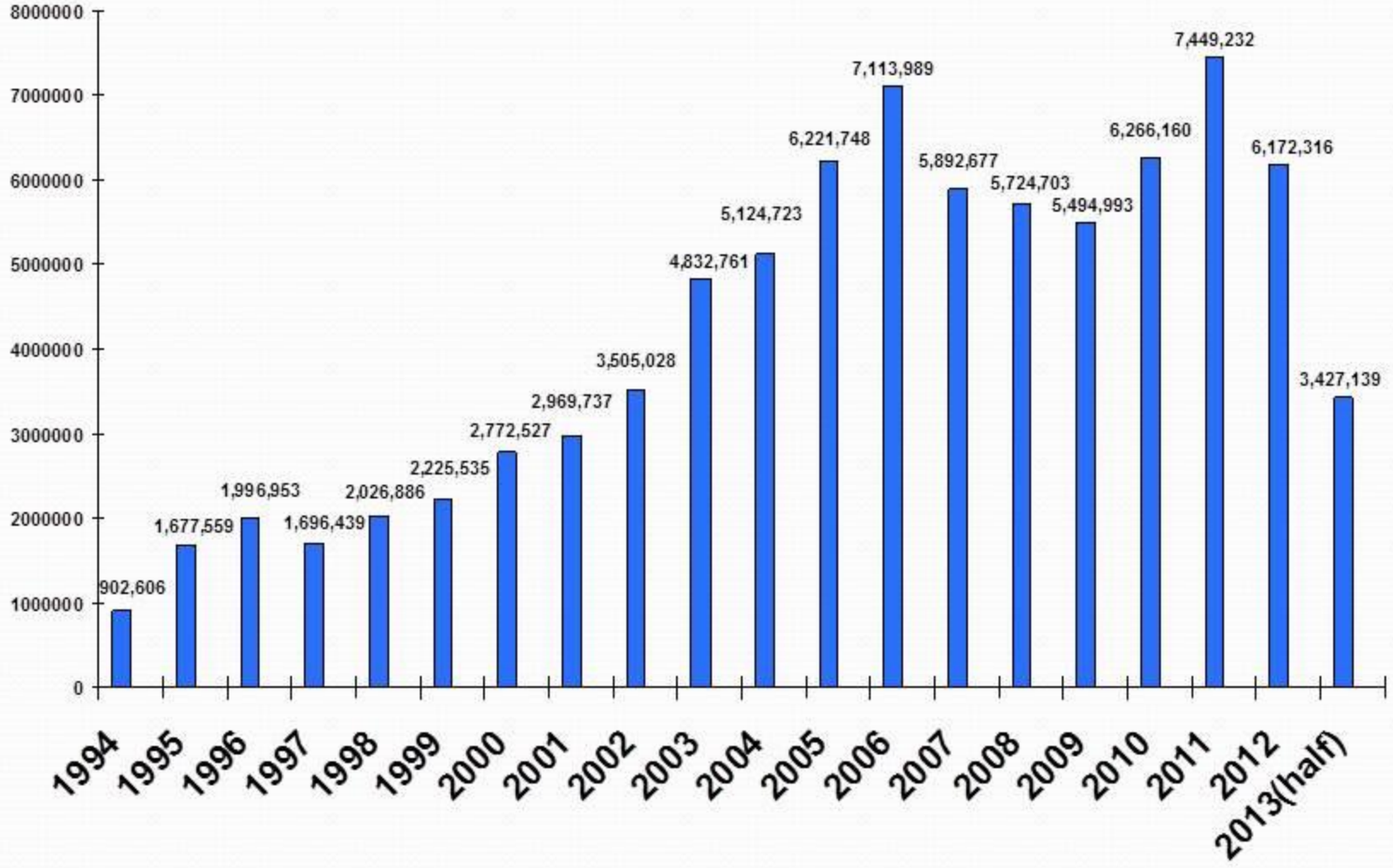
Sioux Falls, SD

September 6, 2013

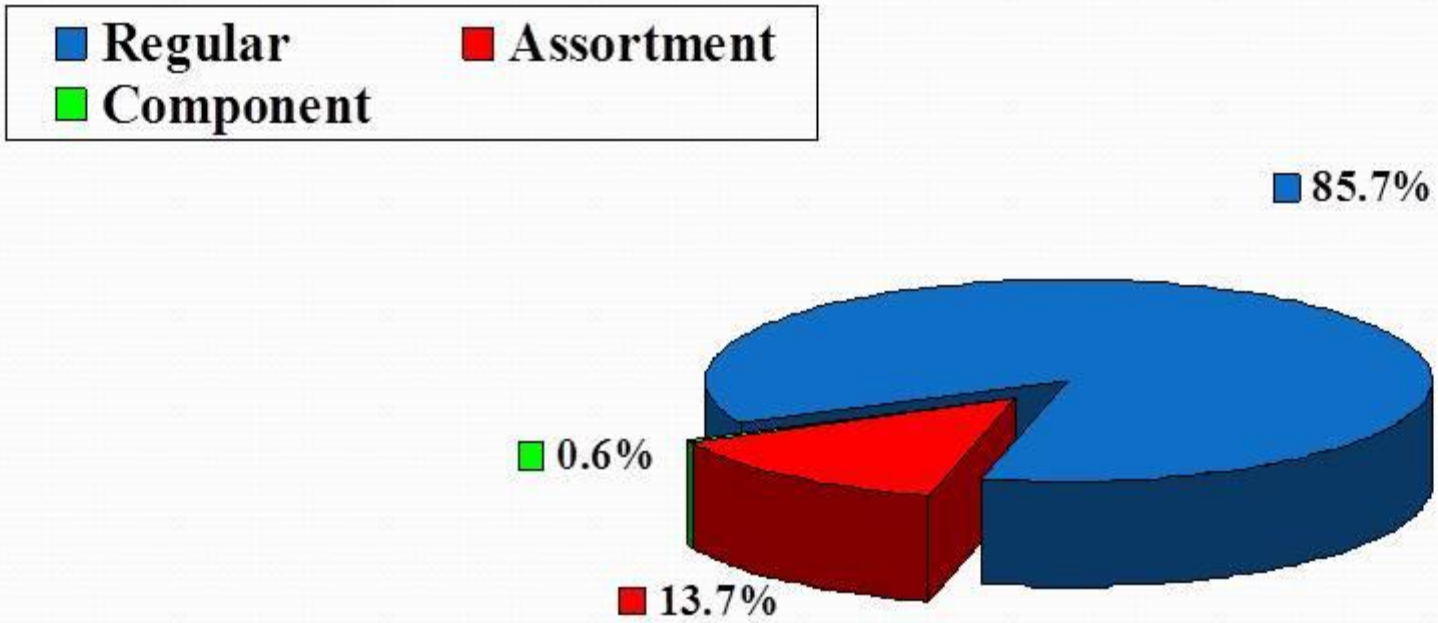
UPDATE ON CONSUMER FIREWORKS

Consumer Fireworks Mid-year Program Summary

CASES TESTED BY YEAR 1994-2013
Quality Improvement Program

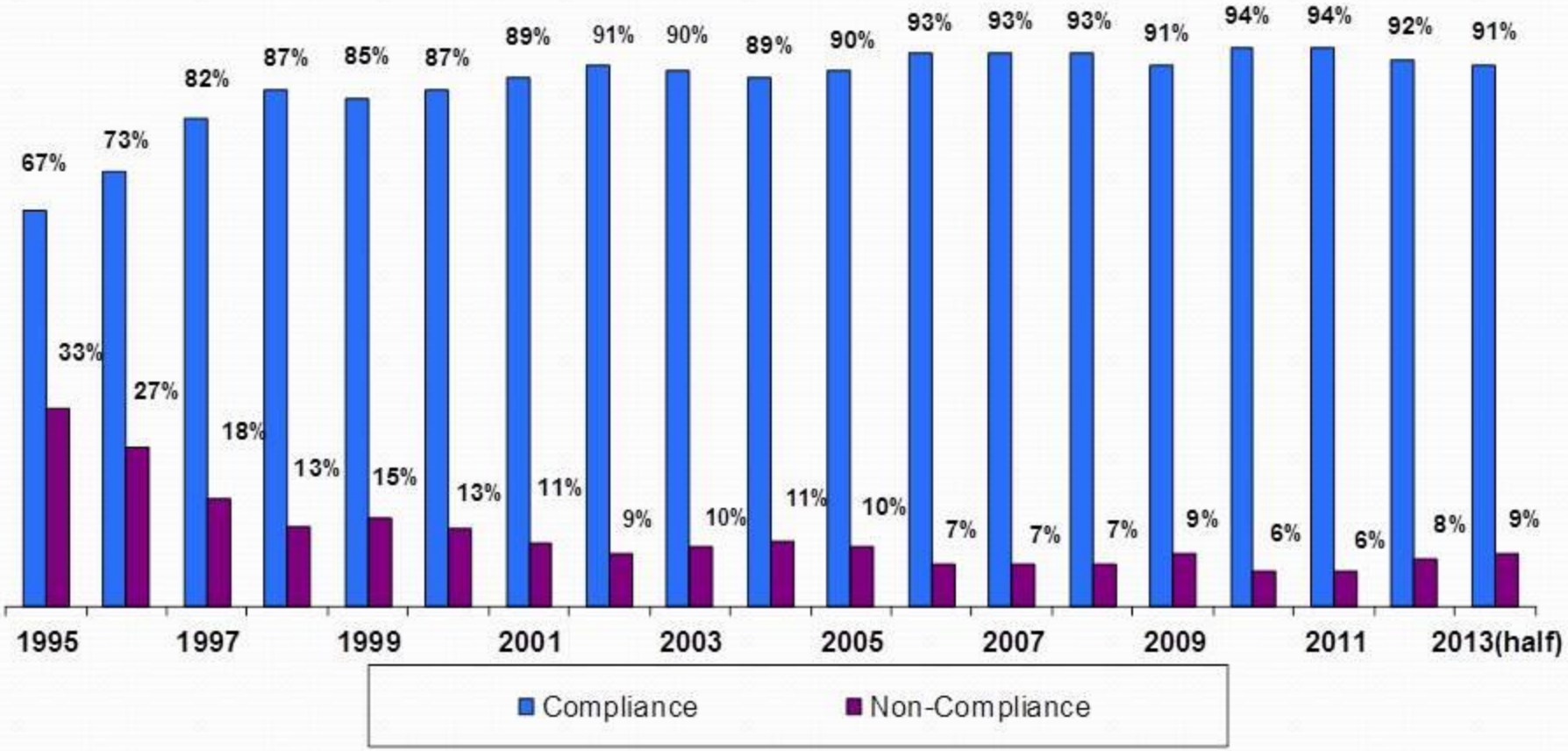


REGULAR, ASSORTMENT, AND COMPONENT
Jan. to Jun. Year 2013



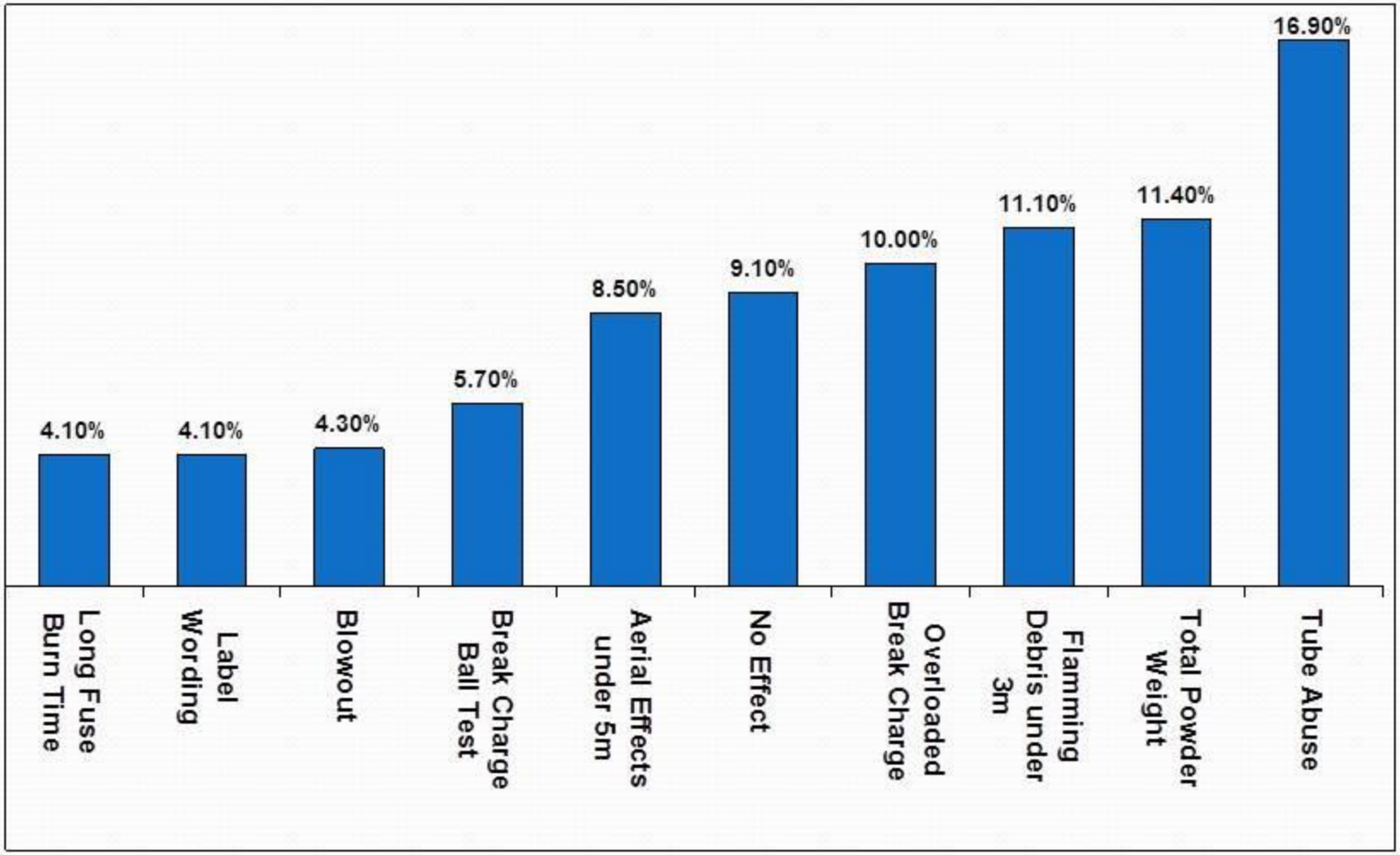
Cases tested for Regular Program: 2,937,714(including 41894 cases in Thailand)
Cases tested for Assortment Program: 469,174
Cases tested for Component Program: 20,251
Total Cases: 3,427,139

QIP COMPLIANCE PERCENTAGE BY YEAR



TOP 10 VIOLATIONS JAN. TO JUN. YEAR 2013

Percentage of Total Violations



MODIFICATIONS TO AFSL STANDARDS

REQUIREMENTS FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN

2-1.8 Multiple Tube Fountains, including tubes and internal construction material, must not continue to burn or re-ignite after functioning.

Effective date: October 1, 2011

TEST PROCEDURE FOR RESIDUAL BURNING (MULTIPLE TUBE FOUNTAINS)

- **Sample Conditioning**: The Samples used for this test will be the same items selected for Performance Testing. Place the samples in a warm, dry room at the temperature of 100-120° F for 24 hours.* Conduct performance tests in accordance with normal procedures.

*NOTE: The sample conditioning procedure is waived until Centralized Testing is re-established.

TEST PROCEDURE FOR RESIDUAL BURNING (MULTIPLE TUBE FOUNTAINS)

- **Test Procedure:**

- Following functioning of the devices in the performance test, allow the items to sit for 1 hour.

- If ignition of the tubes or other internal components occurs during the one-hour observation period, record that device as a Failure.

TEST PROCEDURE FOR RESIDUAL BURNING (MULTIPLE TUBE FOUNTAINS)

- **Test Procedure (continued):**

- After the one-hour period, use the Thermal Detector (positioned 11 inches from the top of the device), scan the entire inside area of the device, and record the maximum internal temperature that can be detected in each of the devices.

- If the maximum internal temperature remains above 250° F (121° C), record that device as a Failure.


micro temp
MT PRO
LASER

ADDITIONAL WARNING LABEL FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN

- Added additional warning label for Multiple-tube Fountains:

4-2.13 Multiple-tube Fountains subject to this Standard must bear a warning label which reads: "May re-ignite. Soak with water after use."

CAUTION
MAY RE-IGNITE. SOAK WITH WATER AFTER USE.

ADDITIONAL WARNING LABEL FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN

NOTE: The label must be placed on the top surface of the device next to the fuse, where feasible. Where not feasible, the label must be placed on the flat surface closest to the fuse. The label must be consistent with AFSL labeling requirements in Appendix B.

Effective Date: January 1, 2014 (Pending Board approval)

REQUIREMENTS FOR COVERED FUSES

- NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks, requires that only consumer fireworks that comply with the requirement for covered fuses in PYR 1129 … may be sold in retail stores.

- NFPA PYR 1129 specifies the test method for covered fuses.

AFSL REQUIREMENT FOR COVERED FUSES

- “Fireworks devices subject to this Standard must have covered fuses that successfully resist ignition from open flames, hot surfaces and incendiary sparks when tested in accordance with test procedures found in NFPA1129 -2013 Edition and any additional requirements specified by AFSL”.

- Effective Date: August 1, 2015

THREE TEST METHODS

- The Open Flame test conducted with a butane lighter which requires that the fuse cover resist ignition for 5 seconds;

- The Hot Surface test, which is performed by holding a lighted cigarette on the fuse cover for 5 seconds; and

- The Spark Test conducted by aiming a spark-producing device (fountain) at the fuse from a distance of 24 inches for 30 seconds.

PHMSA FINAL RULE ON EX NUMBER APPROVALS ALTERNATIVE

- On August 30, 2012, PHMSA issued a Notice of Proposed Rulemaking to establish an alternative to current EX Numbers approval process.

- For 1.4G fireworks only, an alternative was proposed for applicants submit applications for EX numbers to a Fireworks Certification Agency (FCA) instead of PHMSA.

- AFSL, APA, NFA and 35 other companies submitted comments to PHMSA.

PHMSA's FINAL RULE ON EX NUMBER APPROVALS ALTERNATIVE

- PHMSA's Final Rule issued July 16, 2013 allows FCA's to issue Approvals for 1.4G consumer fireworks.

- Approvals issued by a FCA's will received a FC (fireworks certification) number rather than an EX number.

- Effective Date: August 15, 2013.

SUMMARIES OF PHMSA FINAL RULE ON EX NUMBER APPROVALS ALTERNATIVE

- APA Standard 87-1 (2001 current Edition):

  At present, PHMSA is only following the current (2001 edition) of APA Standard 87-1 for EX Approvals. When the revised APA Standard 87-1 is finalized and published by APA, PHMSA will consider adopting the revised 87-1.

WHO CAN BECOME AN APPROVED FCA?

- Any organization or person seeking to become an approved fireworks certification agency must apply in writing to PHMSA.
- AFSL/SGS will apply to become a recognized FCA.
- Application may be submitted starting August 15, 2013.
- Approval of application by PHMSA is expected to take several months.

CENTRALIZED TESTING

Mr. Joe Romeo
Global Key Account Manager, SGS

UPDATE ON CTS

- AFSL started testing at the CTS in the Liuyang area in September 2012.
- Operations have temporarily been suspended as of April 2013.
- We are working diligently to open CTS' in all regions within China including the Liuyang area.
- Our plan is to convert to CTS' in all regions at the same time.
- Our expectation is to have the CTS' operating by the 2nd half of 2014.

INTERIM OPERATIONAL PLAN

- Temporarily we are testing again at individual factory locations.
- AFSL/SGS Technician Teams are dispatched to sample, test, and certify passing lots on-site.

AFSL INTERNAL AUDITING PROGRAM

INTERNAL AUDIT PROGRAM

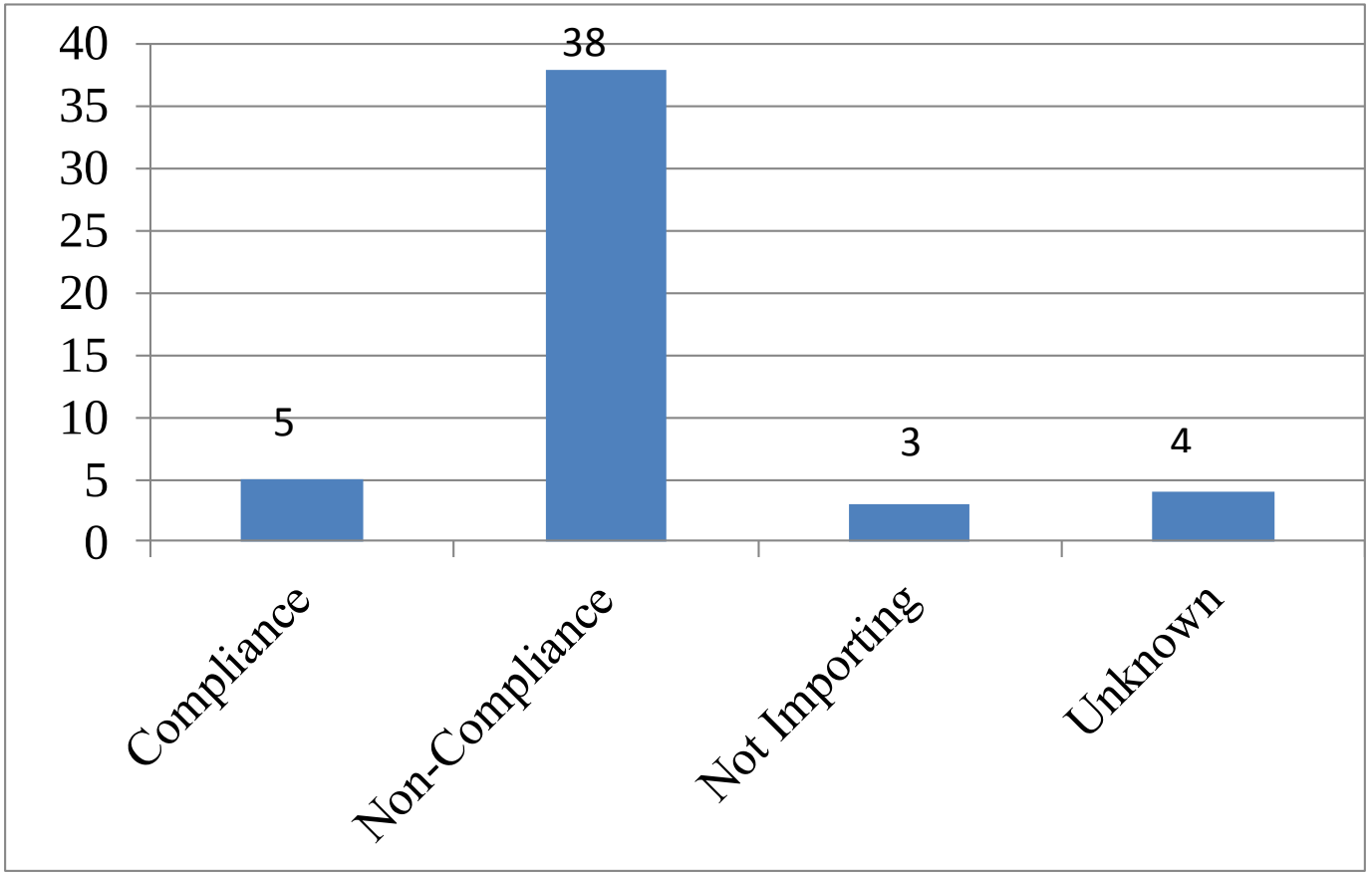
- PURPOSE:
  - A. Monitor Integrity of Certification Process in China.
    - Application of AFSL Stickers
    - Authenticity of AFSL Stickers
    - AFSL Lot Identification Stamps
    - Integrity of Shipping Cartons

- B. Assist Importers in Correcting Deficiencies in Program
  - Familiarity with Requirements of Program
  - How to Address untested Lots
  - Assuring Compliance with CPSC Certification Requirements.

- C. Enhance the Integrity of the AFSL Program
  - Demonstrate that Program is Adequately Monitored
  - Improve the Credibility of the Program for Regulatory Authorities (DOT and CPSC)

SUMMARY OF AUDITS

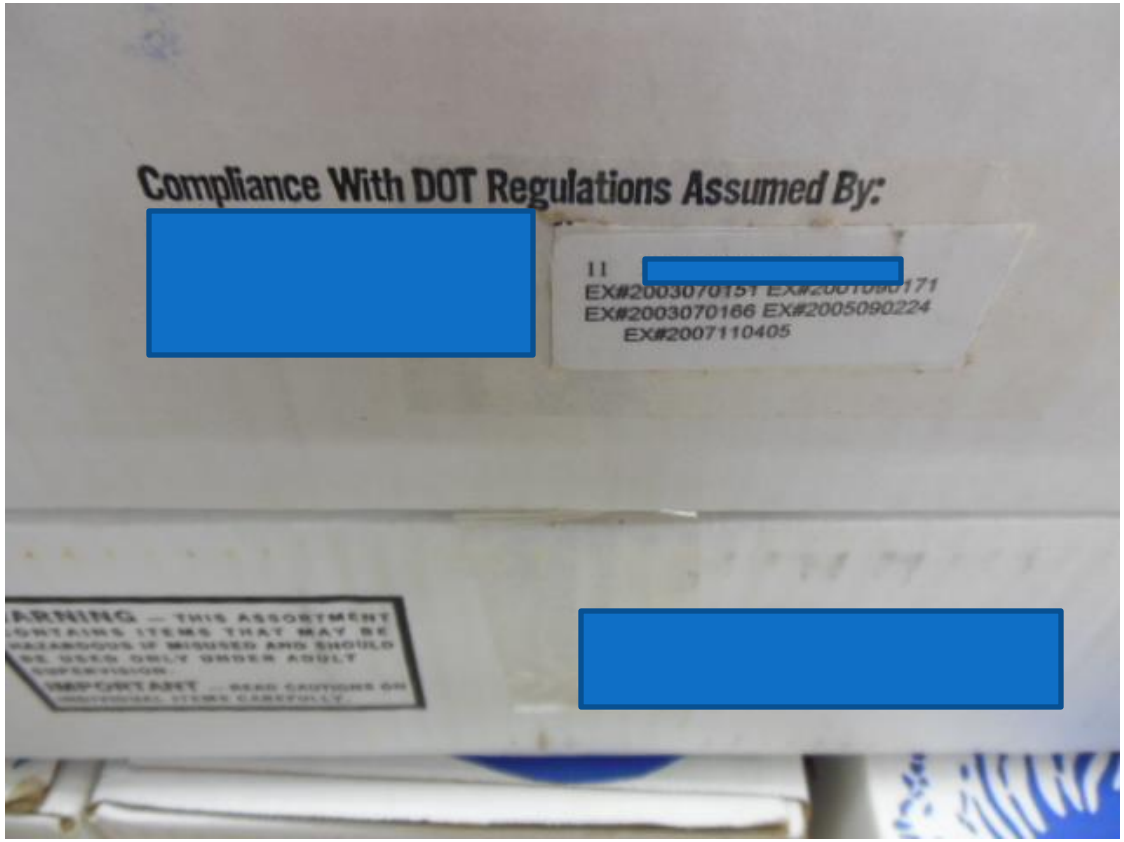
- 50 companies have been audited. The chart below shows the results:



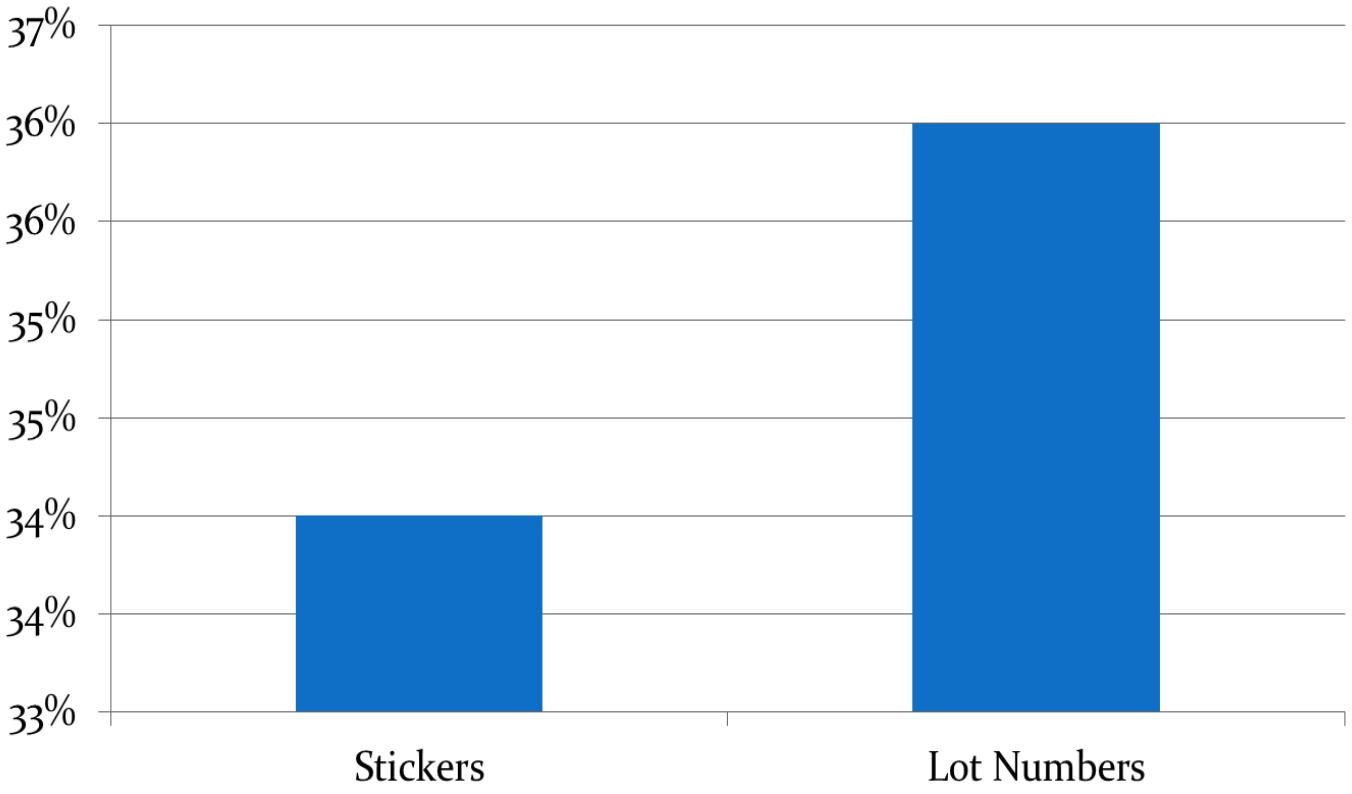
OTHER LABS TESTED AFSL-REJECTED LOTS

PRODUCTS TESTED BY OTHER LABORATORIES

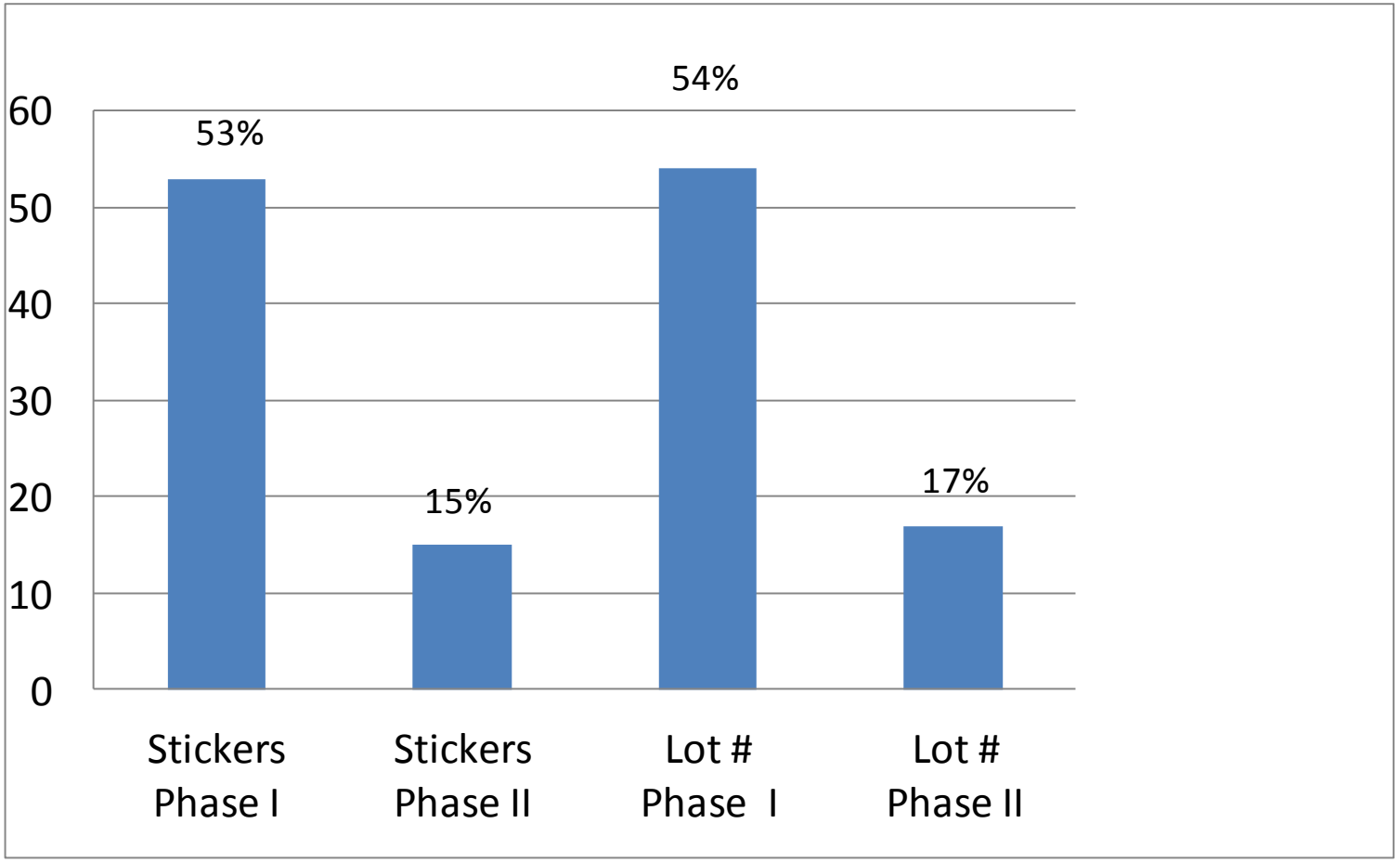
DOMESTICALLY ASSEMBLED ITEMS NOT TESTED



AFSL CERTIFICATION ISSUES



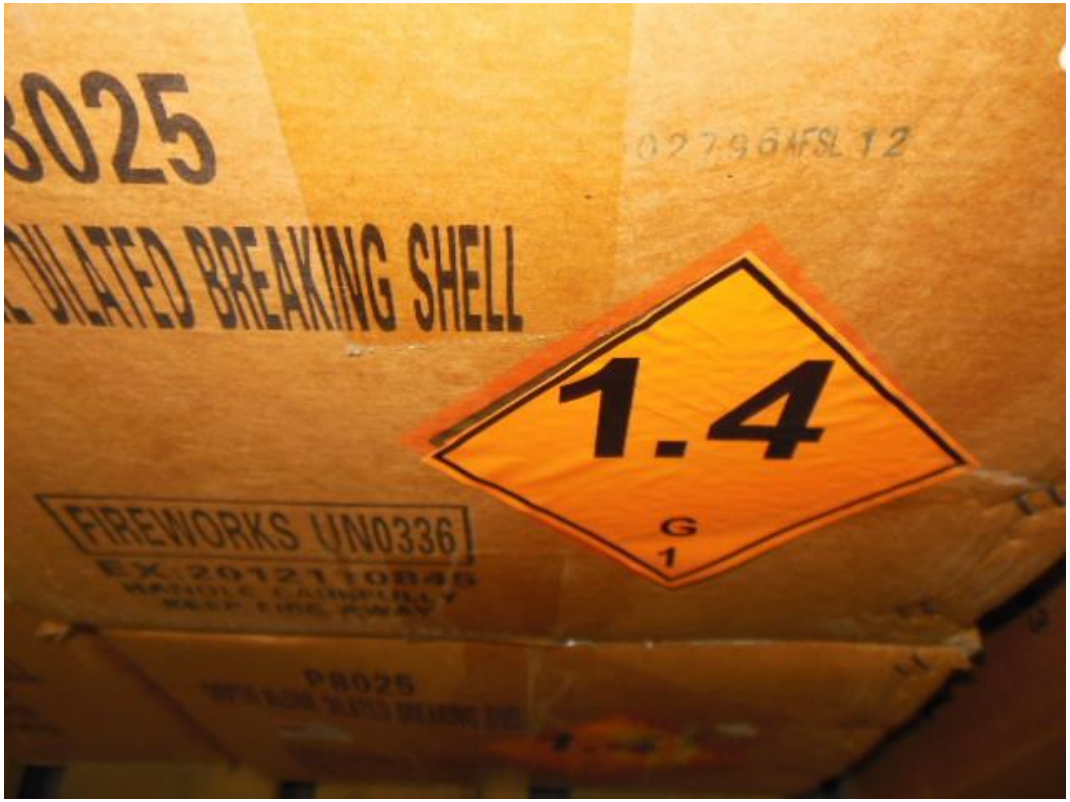
CERTIFICATION PROCESS SUMMARY



STICKER ISSUES

STICKER ISSUES

LOT ID ISSUES



OTHER ISSUES OBSERVED - DAMAGED SHIPPING CARTONS

- Nearly all companies audited had damaged shipping cartons in recently received merchandise. Typically, the items involved were products with plastic spikes attached or items that are packaged with empty space inside the carton (stick rockets, cone fountains, etc.).

DAMAGED BOXES

UPDATE ON DISPLAY FIREWORKS

DISPLAY FIREWORKS PROGRAM REVIEW

Three components :

- Annual factory audits
- On-site product evaluations
- Container loading supervision

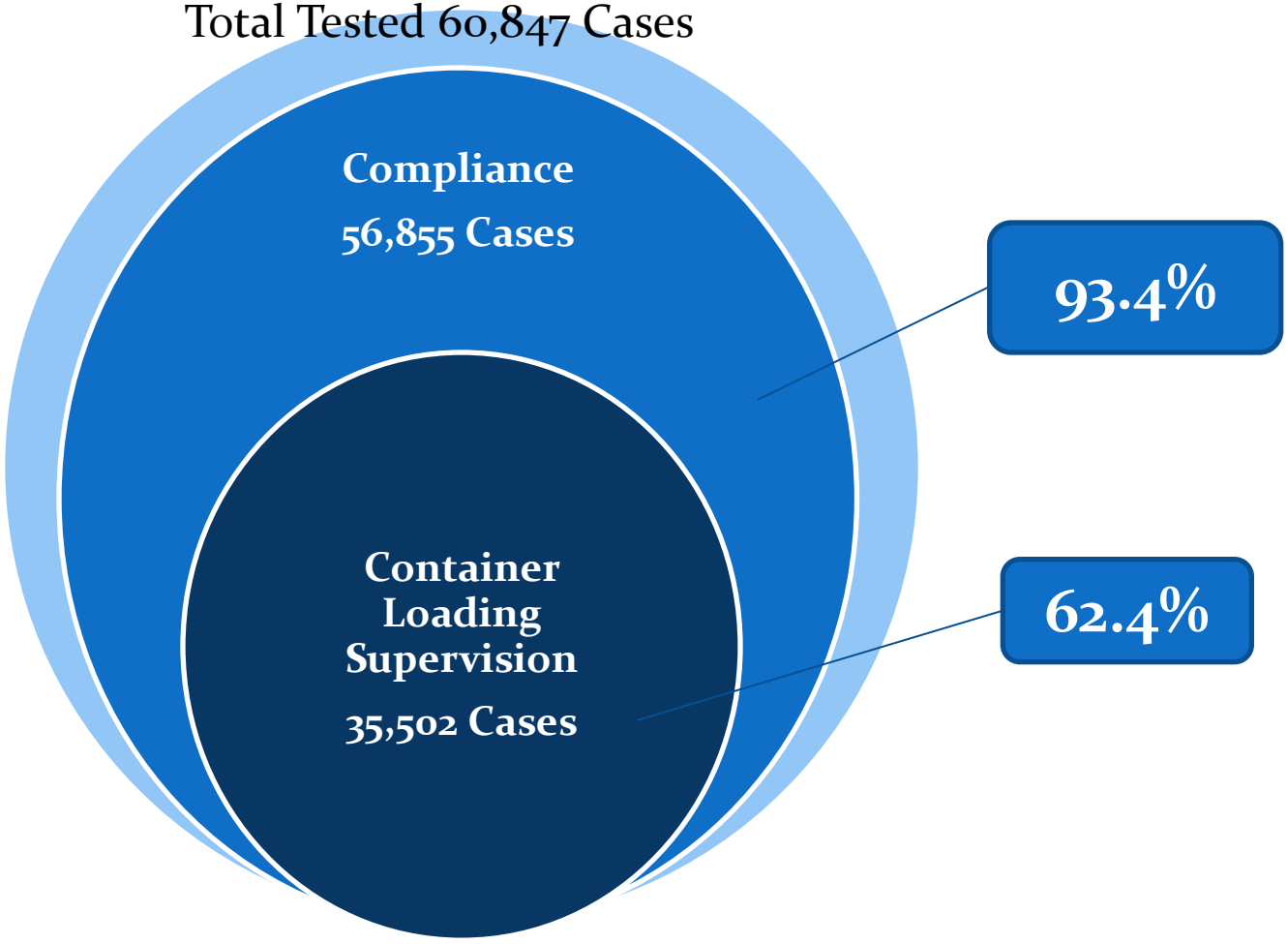
PARTICIPATING IMPORTERS

More than 50% of U.S. Market

1. Alonzo Fireworks Display, Inc. Mechanicville, NY
2. Ammo Hut Productions, Inc., Claremore, OK
3. Arthur Rozzi Pyrotechnics, Inc., Maineville, OH
4. Atlas Advanced Pyrotechnics, Inc., Jaffrey, NH
5. Atlas Enterprises, Inc., Fort Worth, TX
6. Central States Fireworks, Inc., Athens, IL
7. Fireworks by Grucci, Brookhaven, NY
8. J&M Displays, Inc., Yarmouth, IA
9. Kellner's Fireworks Inc., Harrisville, PA
10. Lew's Fireworks, Inc., Watertown, SD
11. Melrose Pyrotechnics, Inc., Kingsbury, IN
12. Pyro Shows, Inc., La Follette, TN
13. Pyro Spectaculars, Inc., Rialto, CA
14. Pyrotecnico, New Castle, PA
15. RES Specialty Pyrotechnics, Belie Plaine, MN
16. Western Enterprises, Inc., Carrier, OK
17. Wolverine Fireworks Display, Inc., Kawkawlin, MI
18. Zambelli Fireworks, New Castle, PA

DISPLAY FIREWORKS TEST SUMMARY
January – June, 2013

Total Tested 60,847 Cases



COMMON VIOLATIONS

- Lack of Fuse Protection

COMMON VIOLATIONS

- Rising Effects Not Protected

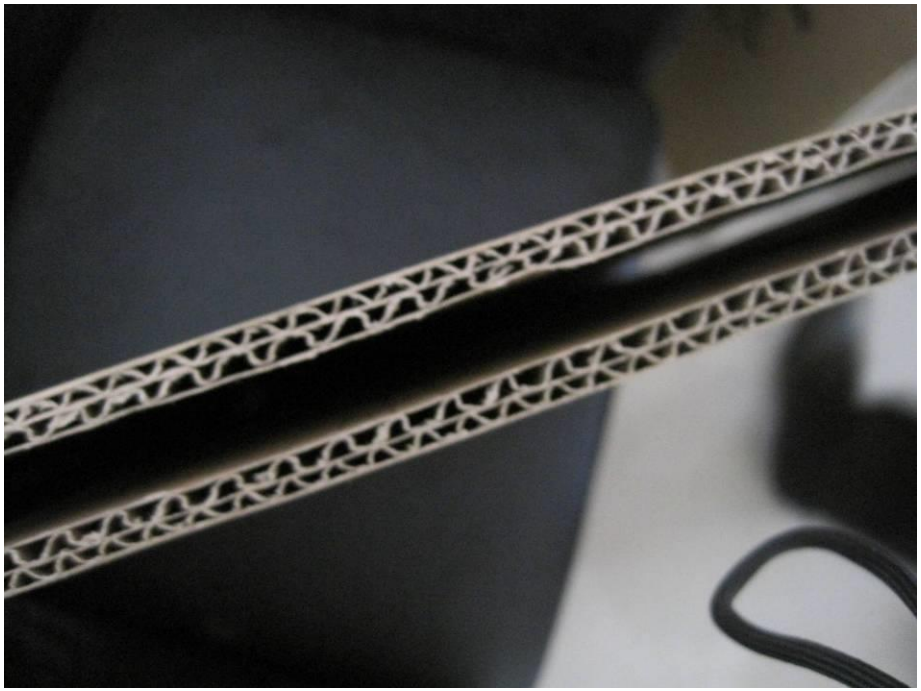
COMMON VIOLATIONS

- No Inner Packaging To Prevent Items From Contacting Outer Packaging.

COMMON VIOLATIONS

- Incorrect Carton Layers

  Gross weight ≥ 20 kg but 5 layers only.



COMMON VIOLATIONS

- No Drop Test Documentation

  Required by Product Category.

- No Thermal Stability Test Documentation.

  Required by Composition Formula

MODIFICATIONS TO DISPLAY STANDARDS

SHIPPING CARTON MARKINGS

- Revise section 3-2.2.4 to read:

"Each shipping carton must be marked with the correct UN Number and shipping name. **The identification number marking preceded by the "UN" must be marked in characters at least 12 mm (0.47 inches) high."**

SHIPPING CARTON MARKINGS

- Revise Section 3-2.2.5 as follows:
- 3-2.2.5 Each carton of Display Fireworks must have an orange (For Orange--Use PANTONE® 151 U), diamond-shaped label ~~(approx. 4”x4”)~~ pasted or printed on the box ~~and read 1.1G, 1.3G, 1.4G, or 1.4S~~. The use of the word *Explosive* on the label is optional.

CORRECT PANTONE 151U ORANGE COLOR

WEBSITE FOR CORRECT PANTONE 151U COLOR

www.pantone.com/pages/pantone/colorfinder.aspx

The compatibility group letter “G” or “S” must be the same size as the division number and must be shown as a capitalized Roman letter. For the EXPLOSIVE 1.3 labels, the compatibility group letter must be shown as a capitalized Roman letter. Division numbers must measure at least 30 mm (1.2 inches) in height and at least 5 mm (0.2 inches) in width.

The label must be located on the same surface of the package as, and near, the proper shipping name marking.


1.3
G
1
FIREWORKS UN0335

SHIPPING CARTON MANUFACTURING SPECIFICATIONS

- Add new section 3-2.4.3.

3-2.4.3 Shipping cartons containing Multi Shot Aerial Devices (Cakes) manufactured with all tubes in a vertical configuration and weighing 20kg (44 lbs.) or over may be manufactured from a minimum of five (5) layers of cardboard material provided that the gross weight of the product does not exceed 35kg (77 lbs.).

ALL TUBES MUST BE VERTICAL

REQUIREMENTS FOR THERMAL STABILITY

Revise Section 3-3.2.2 as follows:

- 3-3.2.2 The composition formula for each ~~All~~ Display Fireworks device subject to this Standard must be tested to determine Thermal Stability, in accordance with procedures specified in **Appendix D** of this Standard.

PRODUCT LABELING AND MARKINGS

- Revised Section 3-4.2.2 as follows:

- 3-4.2.2 All Display Fireworks devices must bear a warning label that includes at a minimum the statement "WARNING: DANGEROUS EXPLOSIVE. IF FOUND, DO NOT HANDLE. CONTACT LOCAL FIRE OR POLICE DEPARTMENT. FOR PROFESSIONAL USE ONLY".

QUESTION & ANSWER PERIOD

WWW. AFSL.ORG

THANK YOU!