

**NFA CONSUMER AND DISPLAY FIREWORKS SEMINAR**  
**JOPLIN, MO**  
**SEPTEMBER 6, 2012**





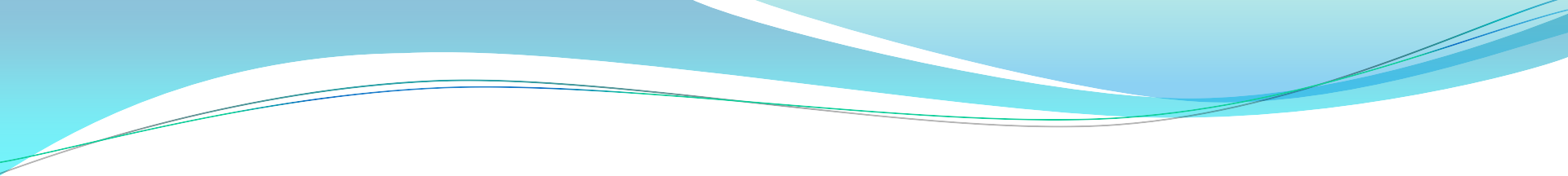
# **DOT PROPOSED RULE ON EX NUMBERS FOR CONSUMER FIREWORKS**

# DOT PROPOSAL

- On August 30, 2012, PHMSA issued a Notice of Proposed Rulemaking to establish an alternative to the current EX Numbers approval process.
- For 1.4G fireworks only, an alternative option is proposed in which applicants will submit applications for certification to a *Fireworks Certification Agency* (FCA) in lieu of submitting applications for approval to PHMSA."
- The FCA would certify that fireworks comply with the criteria of APA Standard 87-1.

# What is a Fireworks Certification Agency?

- FCAs will need to be 'approved' by PHMSA.
- To become a DOT-approved FCA, the applicant will be required to submit an application with all procedures it will use to review and certify Division 1.4G consumer fireworks, as specified in DOT regulations.

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- PHMSA will review and determine the adequacy of the applicant's qualifications and proposed procedures, and decide whether they provide an equivalent or greater level of safety to the current approval process.
  - PHMSA plans to develop a guidance document for FCAs addressing standard procedures for the certification of Division 1.4G consumer fireworks.

# TIME LINE FOR REVISIONS

- AFSL Presentation to DOT: January 28, 2011
- Date of Proposal: August 30, 2012
- Date Comments are due to DOT: **October 29, 2012**
- Implementation Date: To be set by DOT

# KEY POINTS

- AFSL/SGS could qualify as an approved Fireworks Certification Agency (FCA).
- Existing AFSL Certification Database could satisfy the recordkeeping requirement.
- Processing Time for EX approvals from DOT could improve dramatically.
- AFSL will submit extensive comments on the proposal and requests your input or separate comments.

# KEY QUESTIONS

- Would DOT expect the FCA to perform chemical analysis of each product type? Or simply confirm total pyrotechnic composition?
- Would DOT expect certification to the existing APA 87-1 or a recently submitted revision?
- AFSL and others seeking a meeting with DOT to clarify questions week of Sept. 17<sup>th</sup>.



# *UPDATE OF AFSL ACTIVITIES*

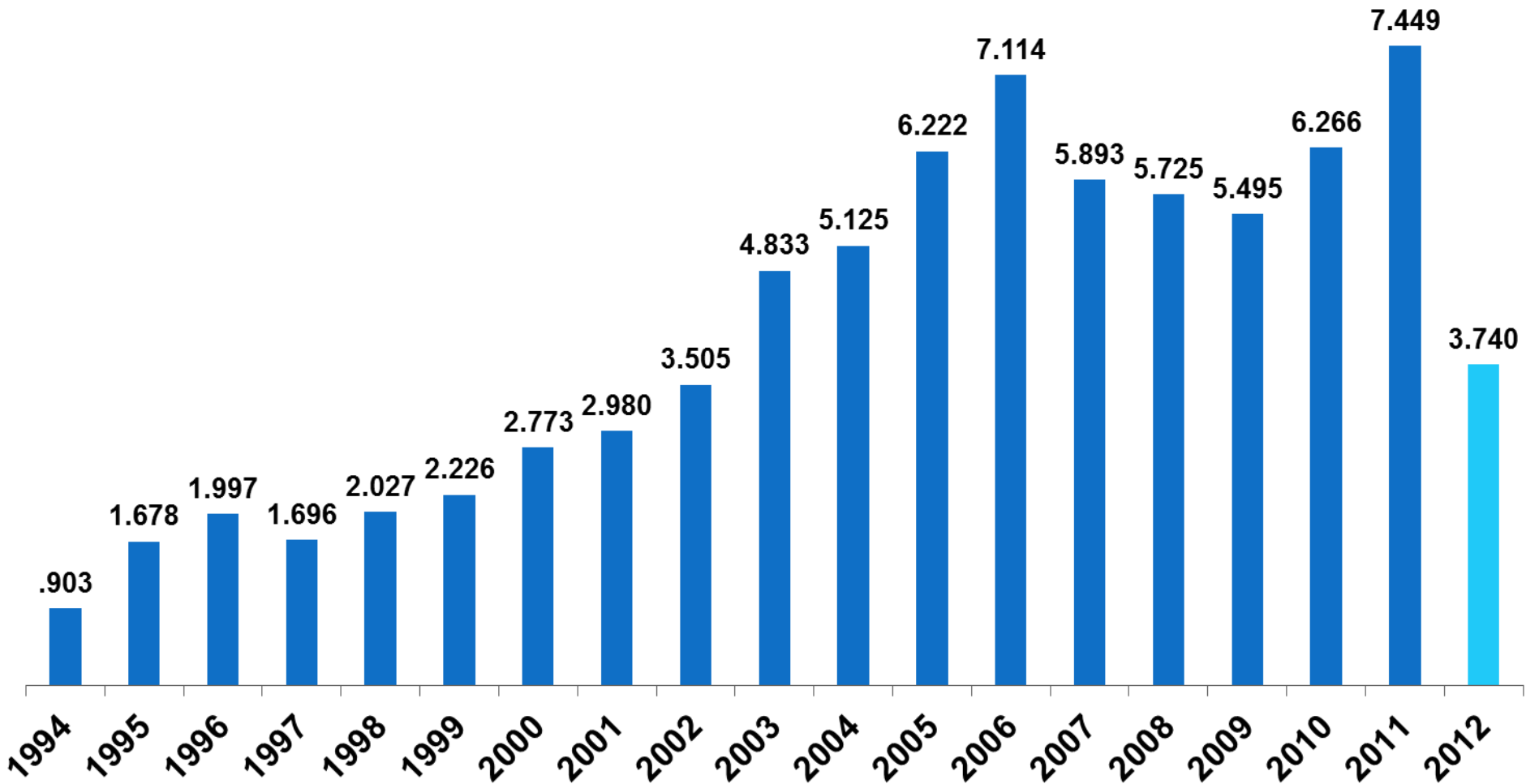
- **John Rogers, Executive Director, AFSL**

# *PROGRAM SUMMARY*

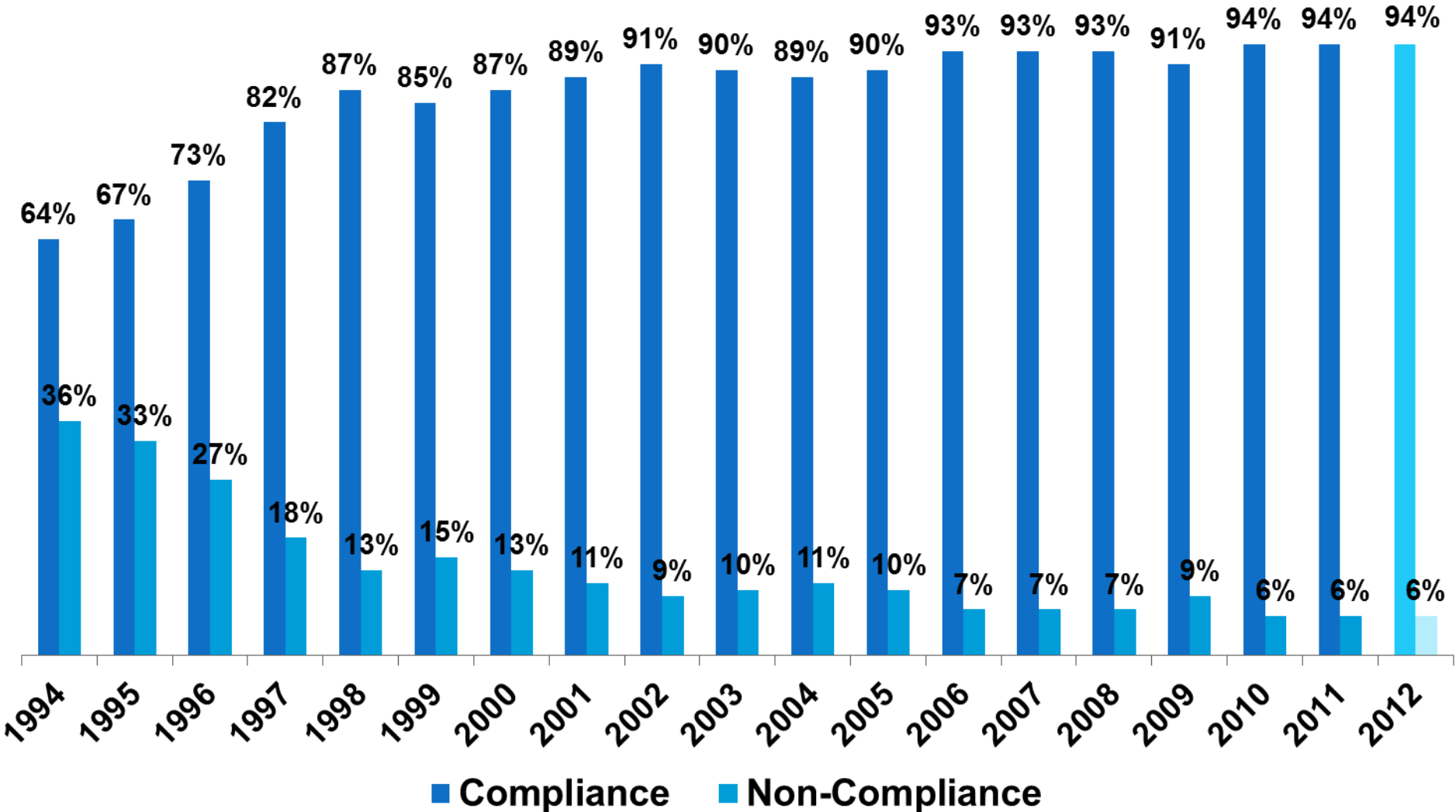


# Consumer Cases Tested By Year 1994 – 2012

(Stated in Millions of Cases)

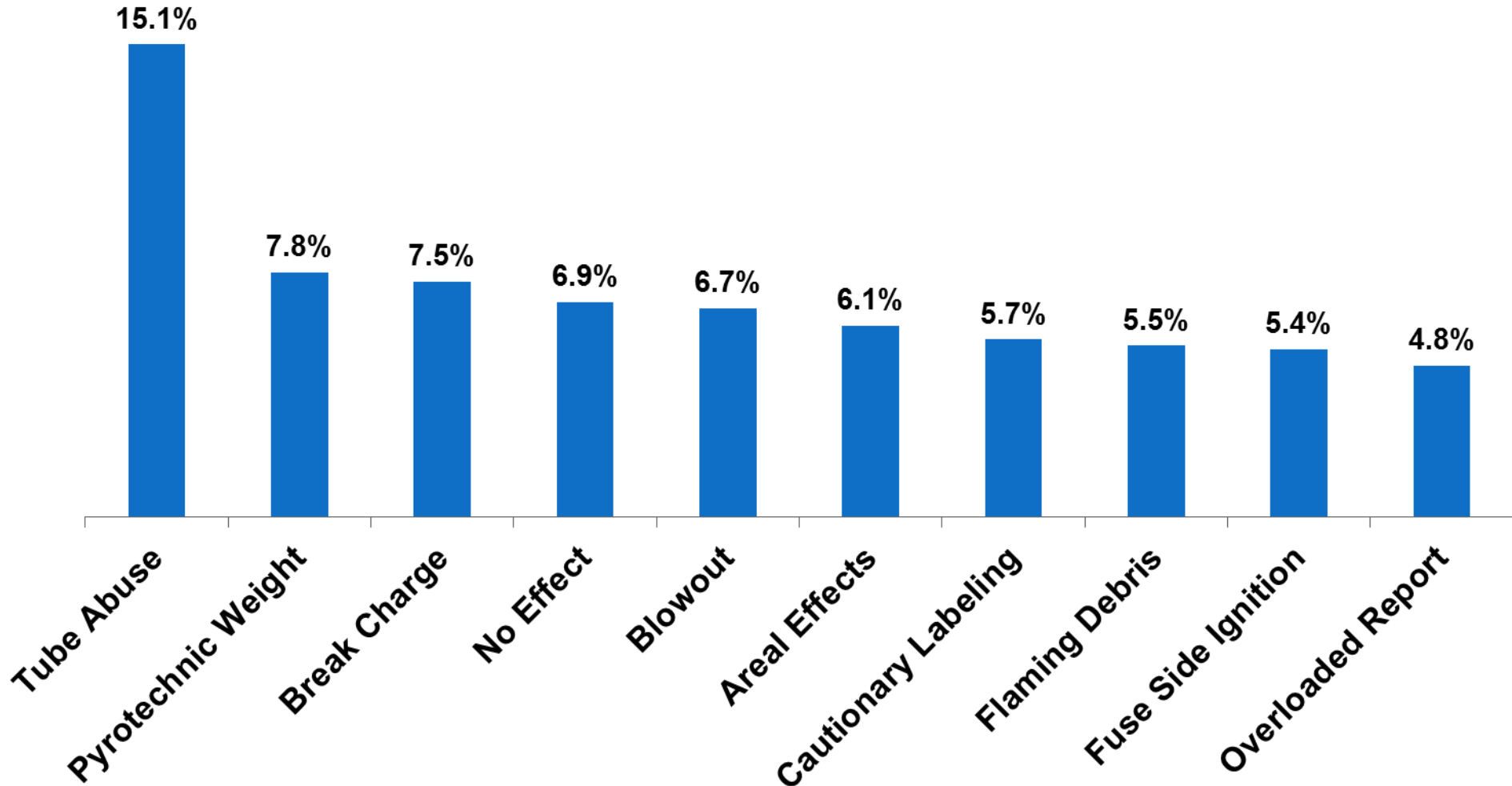


# QIP Compliance Percentage By Year



# Top 10 Violations in 2011

(Percentage of Total Violations)



# *MODIFICATIONS TO STANDARDS*



# ***DEVICES THAT RESEMBLE CANDY OR FOOD***

- ▶ Old Requirement: The finished item must not be designed or packaged in such a manner that it could be confused with candy or other food.
- ▶ New Requirement: The finished item must not be designed or packaged in such a manner that it could be confused with candy or other foods if it is of a size or configuration that could be ingested.
- ▶ Effective Date: September 1, 2012

# ACCEPTABLE





# ACCEPTABLE



# ACCEPTABLE



**BANNED**



# Requirements for Snappers

- New definition: A paper or plastic wrapped device containing not more than 1.0 mg of silver fulminate coated on small bits of sand or gravel. When dropped the device explodes, producing a small report.
- Note: Snappers wrapped in other than paper wrapping or devices containing chemical compositions other than silver fulminate require an EX approval under 49CFR 173.56B.  
Effective date: January 1, 2012.

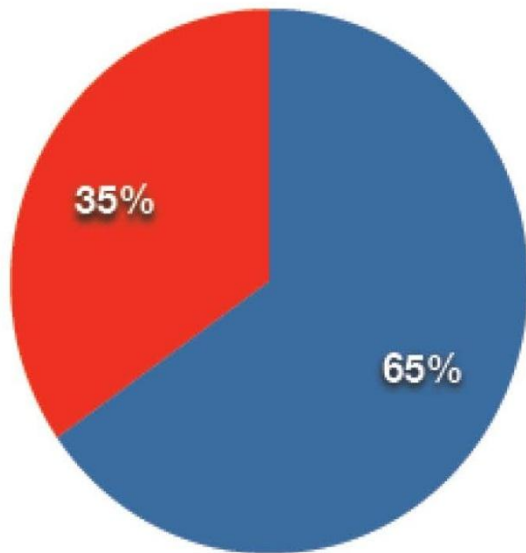
# *MODIFICATIONS TO OPERATING PROCEDURES*



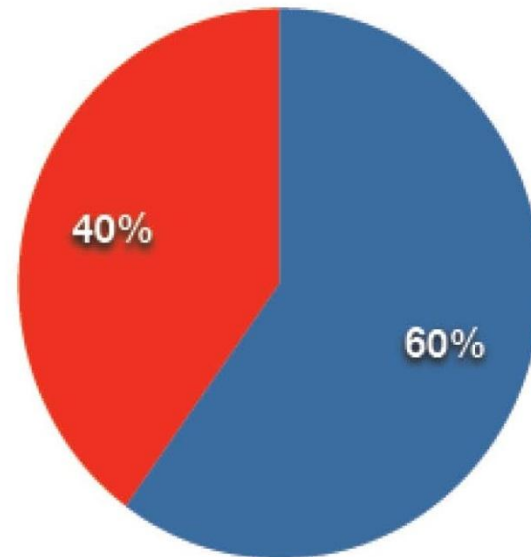
# US CPSC TEST RESULTS

## CPSC Fireworks Program

**FY11 AFSL Tested Samples**



**FY11 Non-AFSL Tested Samples**



● Compliant Samples

● Violative Samples

● Compliant Samples

● Violative Samples

# RECENT SIGNIFICANT VIOLATIONS

AFSL Test Lot ID	Product Category	Violation	Average weight of the audible effect composition
<b>Aerial Devices:</b>			
11014466	Reloadable Assortment	16 C.F.R. §1500.17(a)(3)	11,595.90 mg or 178.95 grains
11X04135	Reloadable	16 C.F.R. §1500.17(a)(3)	11,644.40 mg or 179.70 grains
11014466	Reloadable Assortment	16 C.F.R. §1500.17(a)(3)	11,966.60 mg or 184.67 grains
11014504	Mine and Shells	16 C.F.R. §1500.17(a)(3)	1758.20 mg or 27.13 grains
11013664	Rocket	16 C.F.R. §1500.17(a)(3)	187.50 mg or 2.89 grains
11014927	Mine and Shells	16 C.F.R. §1500.17(a)(3)	2401.60 mg or 37.06 grains
11016458	Mine and Shells	16 C.F.R. §1500.17(a)(3)	2521.30 mg or 38.91 grains
11012024	Mine and Shells	16 C.F.R. §1500.17(a)(3)	2558.40 mg or 39.48 grains
11012025	Mine and Shells	16 C.F.R. §1500.17(a)(3)	2704.30 mg or 41.73 grains
11016754	Combinations	16 C.F.R. §1500.17(a)(3)	2722.30 mg or 42.01 grains
11016093	Mine and Shells	16 C.F.R. §1500.17(a)(3)	2722.30 mg or 42.01 grains
11X03460	Mine and Shells	16 C.F.R. §1500.17(a)(3)	3208.10 mg or 49.51 grains
11017384	Mine and Shells	16 C.F.R. §1500.17(a)(3)	3503.30 mg or 54.06 grains
11015448	Mine and Shells	16 C.F.R. §1500.17(a)(3)	3531.40 mg or 54.50 grains
11013196	Mine and Shells	16 C.F.R. §1500.17(a)(3)	4761.20 mg or 73.48 grains
<b>Firecracker:</b>			
11X04292	Firecrackers	16 C.F.R. §1500.17(a)(8)	490.10 mg or 7.56 grains

# MODIFICATIONS TO TEST PROCEDURES

- Sampling Plan Amended for:
  - Fuse Attachment and Fuse Side
  - Firecracker Powder Weights
  - Performance Test on 500 gram Mine and Shell Devices
  - Weighing of Total Pyrotechnic Composition



# *NEW SAMPLE SIZE FOR FIRECRACKERS POWDER WEIGHT TEST*

- Current sampling plan and AQL.:

**S-1; 2.5**

Typical sample size: 5

- New sampling plan and AQL.:

**S-3; 2.5**

Typical sample size:

20; 32; 50



# **Centralization Testing Program**

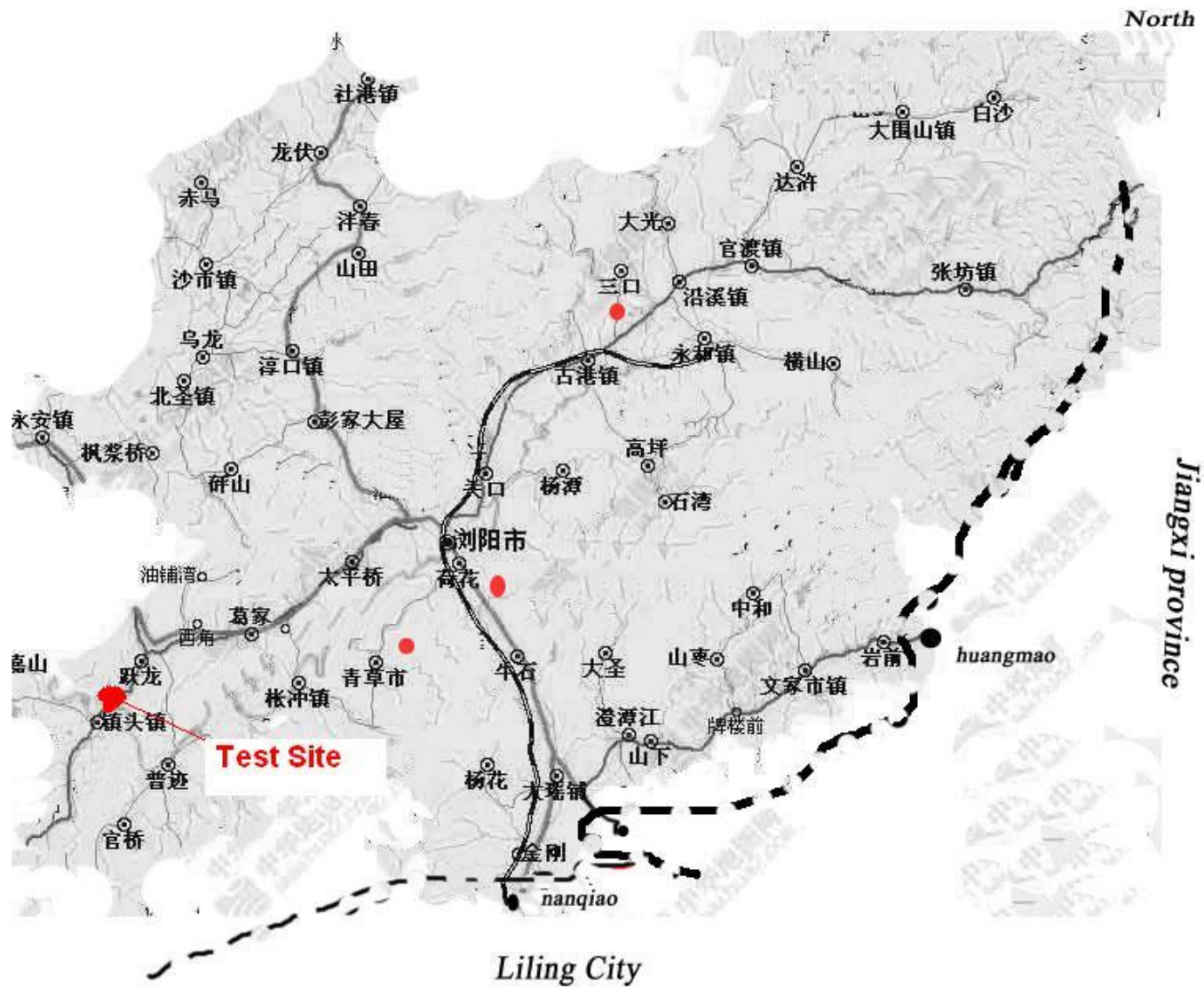
# What is Centralized Testing?

- Current System: Teams are dispatched to factories to randomly sample, test, and certify lots on site.
- Centralized System: All samples are transported to and tested at a central location.

# How Centralized Testing Works

- One team is dispatched to factory to randomly collect, identify and secure samples at the factory.
- Samples are transported to central testing site by AFSL/SGS transportation contractor.
- Testing will be performed at the central site by a different team of technicians, under the supervision of senior staff.
- For complying samples, a third team of technicians is dispatched to the factory to certify the Lot (application of stickers).

# TESTING SITE



# TESTING SITE



# Goals of Centralized Testing

- Improve consistency in results among all testing teams (currently 38 technicians, working in teams to two).
- Standardize the conditions under which testing is performed to assure greater accuracy of results.
- Reduce the potential for undue influence or interference with the technicians by factory personnel, thus enhancing the integrity of the AFSL program.
- Improve consistency with CPSC results.

# Implementation Date

- September 1, 2012





# **AFSL INTERNAL AUDITING PROGRAM**

# INTERNAL AUDIT PROGRAM

- PURPOSE:

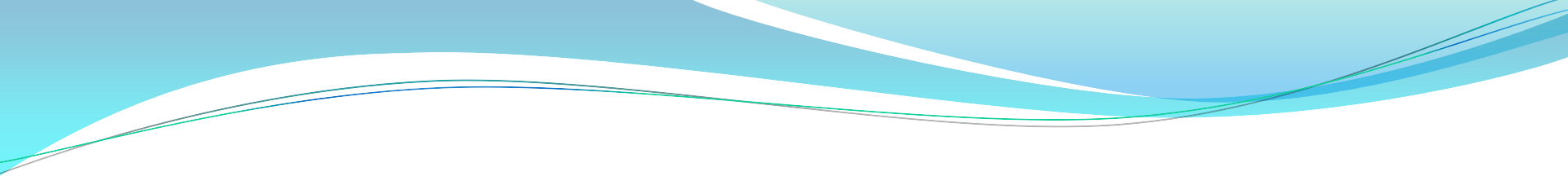
- A. Monitor Integrity of Certification Process in China.

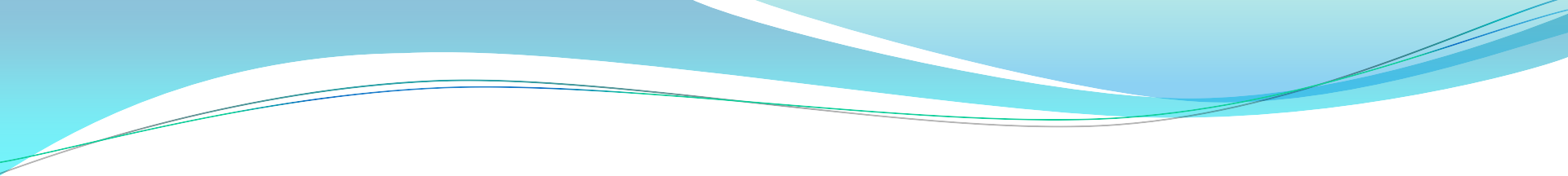
- Application of AFSL Stickers

- Authenticity of AFSL Stickers

- AFSL Lot Identification Stamps

- Integrity of Shipping Cartons

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

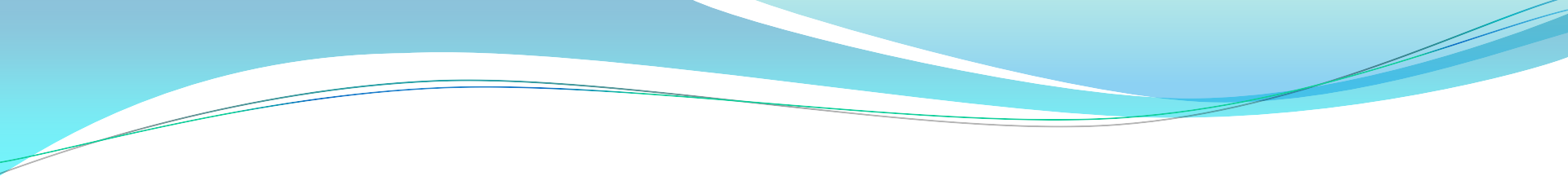
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- C. Enhance the Integrity of the AFSL Program
    - Validate Certification Process in China
    - Demonstrate that Program is Adequately Monitored
    - Improve the Credibility of the Program for Regulatory Authorities (DOT and CPSC)

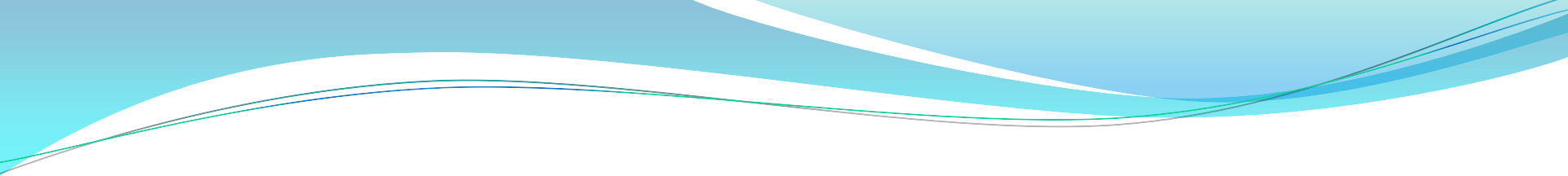
# LIMITATIONS OF AUDITS

- No Intent to Assess Penalties for Discrepancies
- Information Collected is Confidential (AFSL Staff Only; No Board Access)
- No Reporting to Regulatory Agencies

# OPERATING PROCEDURES

- Phase I -- Initial Audits will Cover Board Members' Companies Only.
- Prior Notice to Individual Companies Required (minimum of one week).
- Audits will be Conducted by AFSL Auditor – Jerry Wingard.

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- Multiple Warehouse Locations will be Included in Audits
  - Audits Should Not Exceed One Day at each Location
  - Information Requested will Include:
    - 1. Randomly Check Cartons for Integrity
    - 2. Randomly Open Cartons to Verify Content
    - 3. Certificate of Compliance Review

- 
- Any Discrepancies will be Pointed out to Importer.
  - Written Report Prepared for each Audit.
  - Reports will be Reviewed by Executive Director only, Sent to Company, and Filed by AFSL.
  - Companies may Comment on Contents of Written Report.



# TIMETABLE

- A. Presentation of Program by Board of Directors – Feb. 21, 2012.
- Training/Preparation – Mar. 1 to Mar. 23, 2012.
- Initiation of Audits for Director Companies – Mar. 26 to Aug. 24, 2012.
- Review/Assessment of Process – Aug. 27 to Sep. 30, 2012.
- Initiation of General Audit Program – to be determined.



# **UPDATE ON DISPLAY FIREWORKS**

# *Participating 1.3G Importers*

*More than 50% of U.S. Market*

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

# *Participating Shippers*

- 1 Babytiger Fireworks Import & Export Ltd., Co.
- 2 Cenxi Wahyee Advanced Fireworks Factory
- 3 Far East San Luen Fat Trading Ltd.
- 4 Glorious Professional Products Trading Limited
- 5 Hua Hui Fireworks Manufacturing Co., Ltd.
- 6 ICON Pyrotechnics International Co., Ltd.
- 7 Inter-Oriental Fireworks (HK) Ltd.
- 8 Jiangxi Changshan Exporting Fireworks Manufacture Co., Ltd.
- 9 Jiangxi Province Light Industrial Products I/E Co., Ltd.
- 10 Jiangxi Wanzai Golden Peak Fireworks Corp.
- 11 Liuyang Jingli Fireworks Trade Co., Ltd.
- 12 Liuyang Qingtai Export Trade Co., Ltd.
- 13 Liuyang Sunny Fireworks Trade Co., Ltd.
- 14 United Pyrotechnics (USA) Inc.

## *Timetable*

- **Aug.1, 2011** -- Factory audit checklist was distributed for comments.
- **Aug.18, 2011** -- Follow-up meeting with display industry.
- **Sep.1 – Nov. 30, 2011** -- Factory audits conducted.
- **Nov. 29, 2011** -- China Industry Meeting.
- **Jan. 1, 2012** -- Initiate product evaluations and container loading supervision.
- **Jun. 1, 2012** – **All shipments require certification.**
- **Nov. 1, 2012** – **Initiate 2nd Round of Audits.**



# **DOT EX NUMBERS**

## DOT EX NUMBERS

- DOT implemented new enforcement program for EX numbers in June 2012.
- Shipments are now inspected at U.S. ports for validity of EX numbers.
- Seven containers were seized by DOT due to the lack of valid EX numbers.

# ONE COMPANY'S EXPERIENCE

- Seven containers shipped to Fireworks by Gucci were inspected by DOT, and seized for lack of valid EX numbers.
- The containers include products from three major suppliers in China.
- 55% of the items lacked of valid EX numbers.



## THE PROBLEM –

- EX numbers on the products did not match the approval documents.
- Products contained different effects that were not included in the original series application.
- The factories modified original approved designs without applying for new EX approvals.

# COST TO THE IMPORTER

- Loss of use of the products during the Fourth of July season.
- The containers were required by DOT to be transported to the company's storage facility under special permits and escort.
- Potential fines/ penalties are pending against the suppliers.



# **U. S. DOT INFORMATION BOOKLET**

# U.S. DOT INFORMATION BOOKLET

- Revised/Re-issued June 2012.
- Booklet will be translated and posted on the AFSL website.
- Applications **MUST** be submitted in English.

# AFSL'S PLANS

- AFSL currently does not verify EX Numbers in the product evaluation process.
- AFSL is reviewing DOT's new guidelines.
- AFSL is working with DOT to develop a solution.

# AFSL'S PLANS (CONTINUED)

- Options under consideration include:
  - Incorporating EX Number verification in the Factory Audits.
  - Requiring EX Number documents during product evaluation inspections.
  - Developing AFSL's own EX Number data base to cross reference with DOT.

# *DISPLAY FIREWORKS PROGRAM*

Three components :

1. Annual factory audit
2. On-site product evaluations
3. Container loading supervisions

# *1. ANNUAL FACTORY AUDITS*

## Purpose

- Ensure proper manufacturing practices are maintained.
- Validation that components and packaging for display fireworks meet the requirements of the Display Fireworks Certification Program.



## *2. ON-SITE PRODUCT EVALUATION*

### Purpose

- Ensure the product and packaging comply with the requirements of AFSL standards.
- Certify all shipping cartons with an AFSL sticker.
- **No Actual shooting of fireworks samples.**

# CARTON EVALUATION



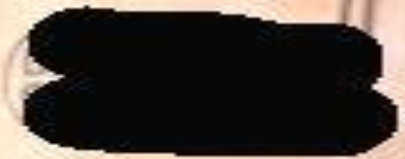
FIREWORKS

EX:  
G.W: 21  
N.W: 15  
MEAS: 51 X 39 X 33  
KGS  
KGS  
CM

UN0335  
8/010/08  
1.3  
UN0335

# CARTON EVALUATION

N.V.  
G.W: 19  
SIZE: 44X44 X45CM  
MADE IN CHINA



# *ELECTRIC MATCHES OR IGNITERS REQUIREMENT*

- 3-1.3 All fireworks subject to this Standard must not have Electric Matches or Igniters attached to them or packaged with them in the same packaging carton.

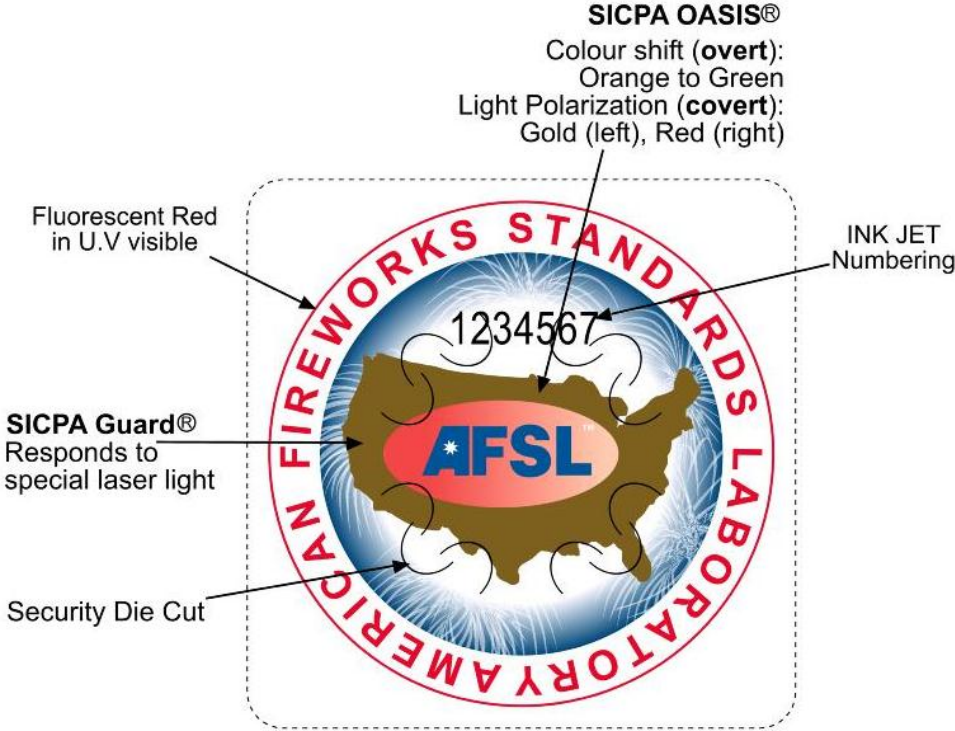


# *CERTIFICATION OF LOTS*

- A Security Lot Identification Number will be stamped on each carton in a lot.
- Each shipping carton in an approved Lot will have an AFSL Security Sticker attached.



# SECURITY SMART LABEL



Confidential

Enlargement

### *3. LOADING SUPERVISION PROCEDURES*

#### ➤ Purpose

- Verify that only AFSL certified/approved display fireworks are loaded into shipping containers.
- Verification of shipping documents.
- Verify the goods are secured for transportation.

# *LOADING SUPERVISION PROCEDURES*

- Loading
  - Check the product quantity against the shipping papers / packing list.
  - Check the general condition of container interior and exterior (e.g. leakage, damage, infestation, etc.).
  - Supervise the loading process, take photos for documentation.
  - Make sure the blocking and bracing is in place.
  - Apply AFSL/SGS seal to the container.



# *RECENT MODIFICATIONS TO STANDARDS*



# *QUESTION & ANSWER PERIOD*

**how**

**where**

**when**

**who**

**why**

**what**



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THANK YOU!

