

**CONSUMER FIREWORKS SEMINAR**  
**YINTIAN HOTEL, LIUYANG, HUNAN**  
**AUGUST 22, 2013**



# INTRODUCTION

## 介绍

➤ **Mr. John Rogers, Executive Director, AFSL**

# REPORT FROM BOARD OF DIRECTORS

## 董事会的报告

➤ **Mr. Michael Collar, President, AFSL**

# UPDATE OF AFSL ACTIVITIES

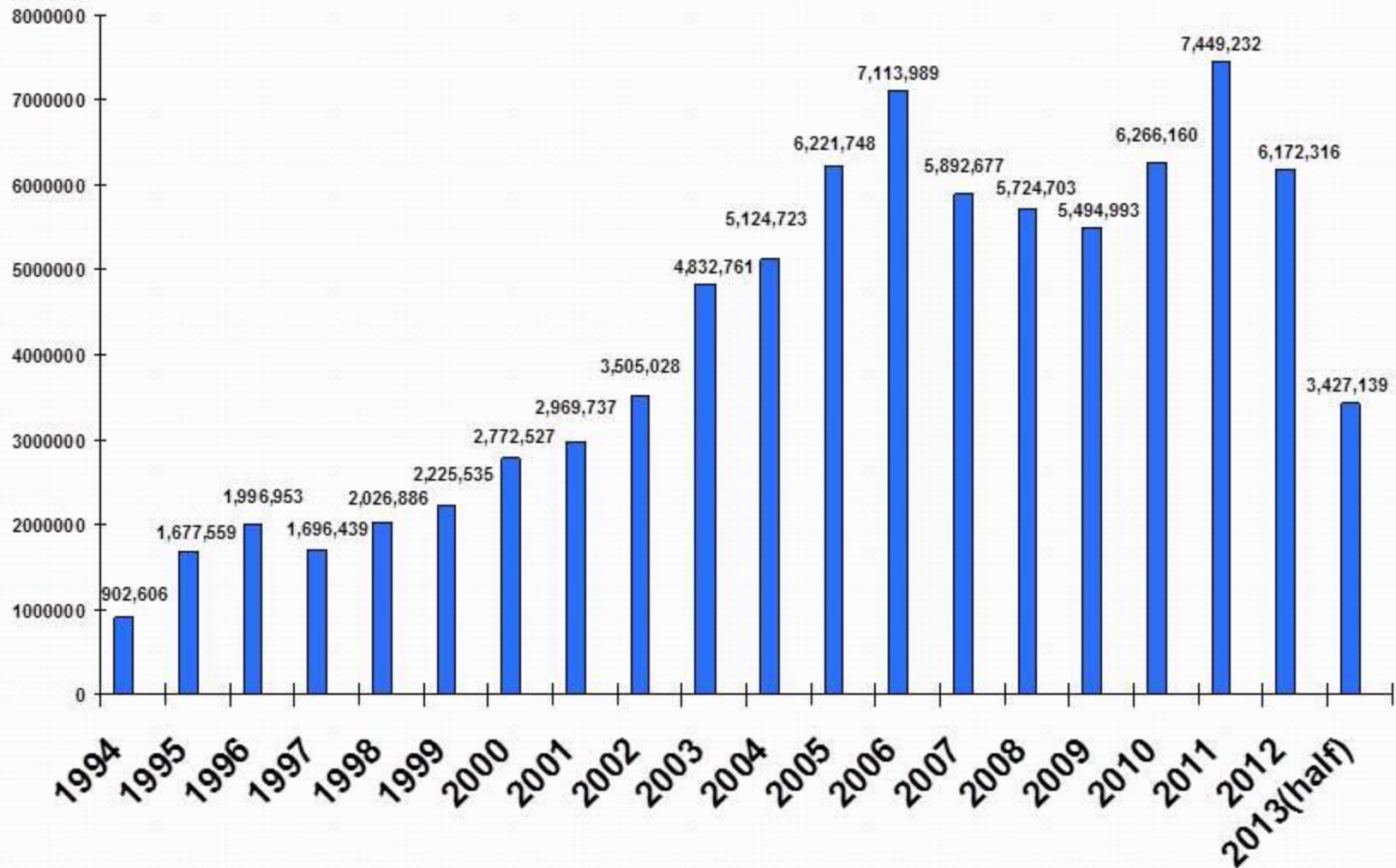
## 美标近期动态

### **Mid-year Program Summary**

### 年中总结

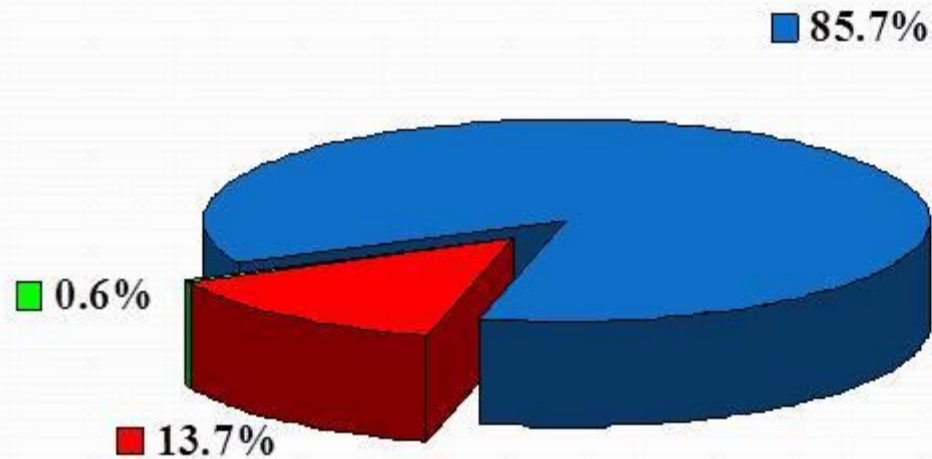
# CASES TESTED BY YEAR 1994-2013

## Quality Improvement Program



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

■ Regular      ■ Assortment  
■ Component



Cases tested for Regular Program: 2,937,714(including 41894 cases in Thailand)

Cases tested for Assortment Program: 469,174

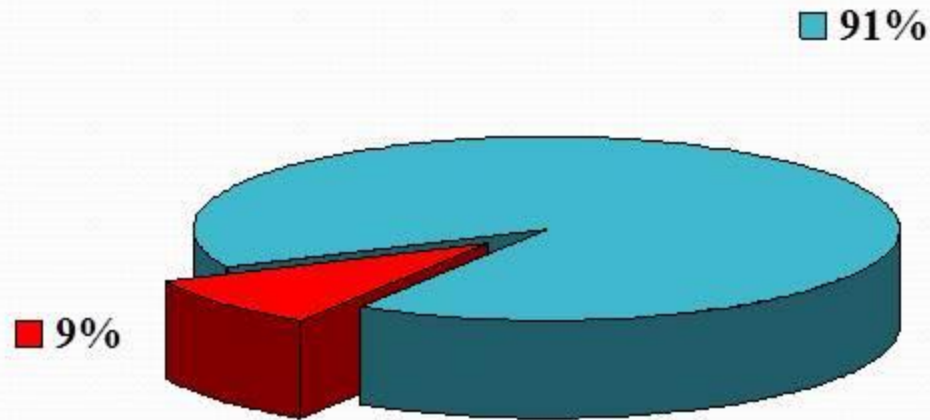
Cases tested for Component Program: 20,251

Total Cases: 3,427,139

# COMPLIANCE RATE JAN. TO JUN. YEAR 2013

## QUALITY IMPROVEMENT PROGRAM

■ Compliance ■ Non-Compliance



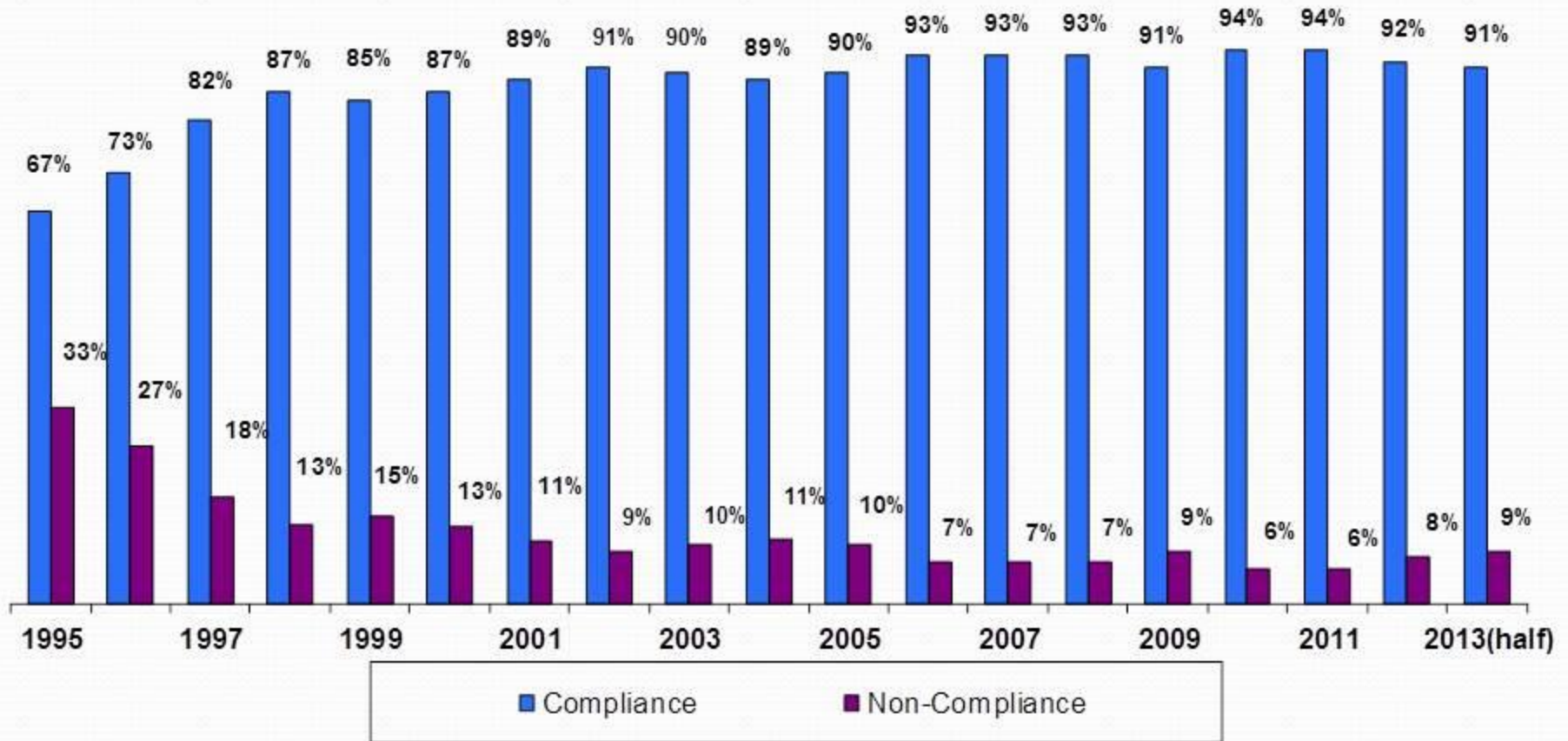
**Complying Cases: 3,114,587 (include component 18,462 cases and regular 41,814 cases in Thailand)**

**Non-Complying Cases: 312,552 (include component 1,789 cases and regular 80 cases in Thailand)**

**Total Cases: 3,427,139 (include component 20,251 cases and regular 41,894 cases in Thailand)**

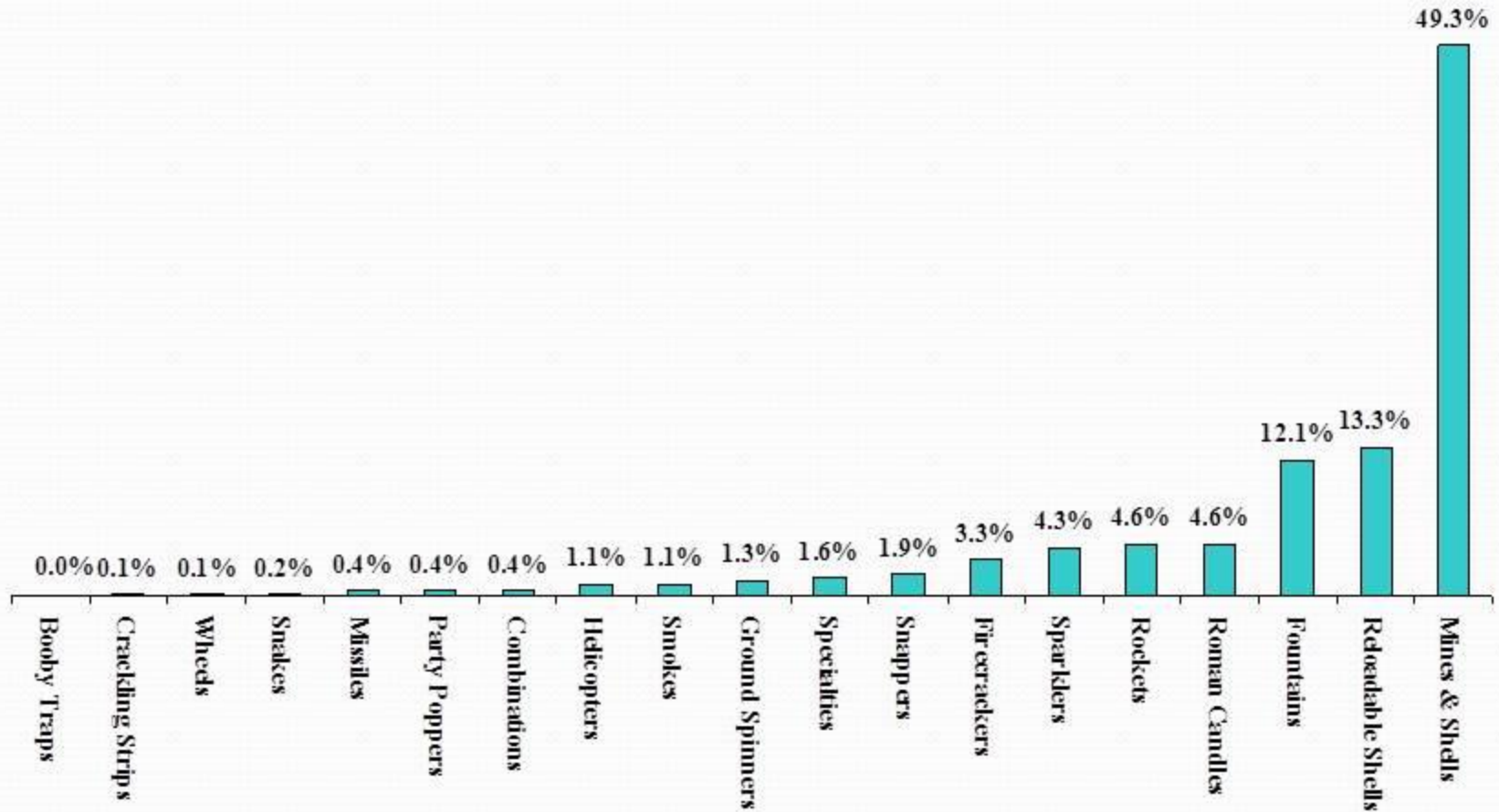


# QIP COMPLIANCE PERCENTAGE BY YEAR



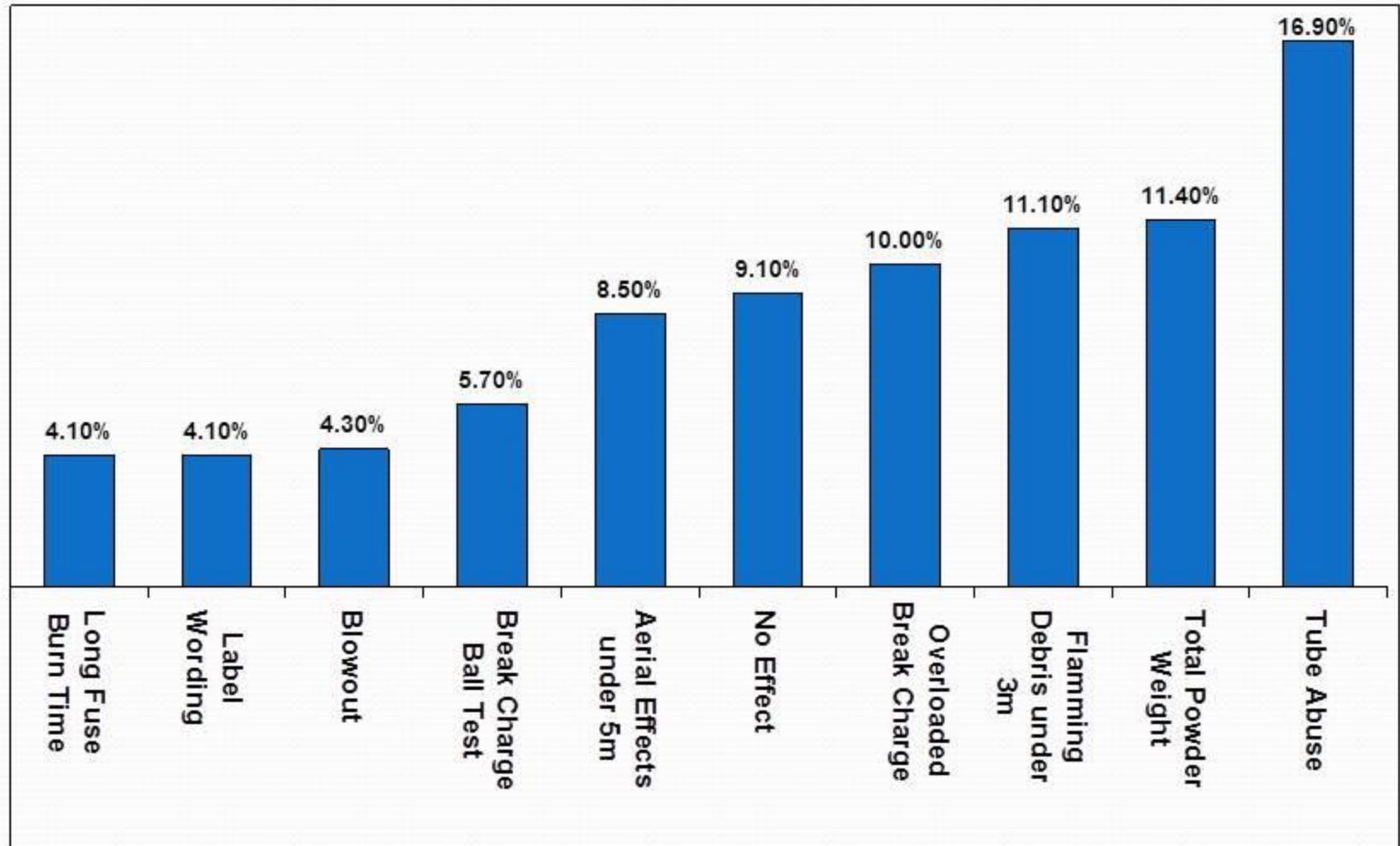


# PERCENTAGE TESTING BY PRODUCT CATEGORY JAN. TO JUN. YEAR 2013



# TOP 10 VIOLATIONS JAN. TO JUN. YEAR 2013

## Percentage of Total Violations



# MODIFICATIONS TO AFSL STANDARDS

## 美标标准修订



# REQUIREMENTS FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN 针对多筒花筒残壳燃烧的要求

- Revised Section 2-1.8 in the Standard for Fountains as follows: 修改章节2-1.8

2-1.8 The finished item, including tubes and internal construction material, must not continue to burn or re-ignite after functioning.

成品，包括纸筒和内部结构在效果完成后不能继续燃烧或复燃

Effective date: October 1, 2011

生效期是2011年10月1日

# Test Procedure for Residual Burning (Multiple Tube Fountains)

## 针对残壳燃烧的测试方法（多筒花筒）

- The Standards Committee developed a Testing Procedure for residual burn in April 2013. 今年4月标准委员会制定了测试方法
- Test procedure is in Appendix L of AFSL standards.

详见美标标准附录L

Effective date: January 1, 2014 (pending Board approval)

生效期为2014年1月1日（有待董事会批准）

# Test Procedure for Residual Burning (Multiple Tube Fountains) 测试方法

- **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.

**样品预处理：**用测试效果功能的样品在华氏100–120度烘箱放置24小时.\* 再正常测试其效果功能。

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

\*注：此预处理在集中测试重开时才执行

## ➤ Test Procedure 测试方法:

- Following functioning of the devices in the performance test, allow the items to sit for 1 hour.  
效果发生后，等待1小时
- If ignition of the tubes or other internal components of a device occurs during the one-hour observation period, record that device as a Failure.  
如果在一小时期间有任何燃烧发生，记为不合格。



## ➤ Test Procedure测试方法:

- 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.

1小时后，用探温器（于装置上方11吋处）探测其内部 最高温度

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

如果有最高温度保持在华氏250度（摄氏121度）以上，记为不合格。



# ADDITIONAL WARNING LABEL FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN 针对多筒花筒残壳燃烧的附加警句

- Added additional warning label for Multiple-tube Fountains: 多筒花筒附加警句标签

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.”

多筒花筒必须有此警句“可能复燃，用后浸水”

**WARNING  
MAY RE-IGNITE. SOAK WITH  
WATER AFTER USE.**

# ADDITIONAL WARNING LABEL FOR MULTIPLE TUBE FOUNTAINS TO ADDRESS RESIDUAL BURN 针对多筒花筒残壳燃烧的附加警句

**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.**

注：此警句应置于装置顶部靠近引线，必须置于最接近引线的平面。并符合美标标准附录B的要求。

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

生效期为2014年1月1日（有待董事会批准）

# PYROTECHNIC LIMIT OF RELOADABLE FOUNTAINS

## 重复装填花筒的药量

- Revised Section 2-1.10.2 in the Standard for Fountains as follows: 删除划红线部分

2-1.10.2 Single-tube Fountains and reloadable Fountain inserts must not contain more than 75 grams (2.6 ounces) total of pyrotechnic composition ~~in each device~~. 单筒花筒和重复装填花筒的药量不能超过75克

# REQUIREMENTS ON COVERED FUSES

## 保护引线的要求

- NFPA 1124, Code for the Manufacture, Transportation, Storage, and Retail Sales of Fireworks, requires that only consumer that have been successfully tested in accordance with PYR 1129 ... to determine compliance with the covered fuse requirements of this code shall be permitted where the retail sales of consumer fireworks are conducted.  
消防协会的条例要求只有符合引线保护要求的消费品烟花才能销售。
- NFPA PYR 1129 specifies the test method for covered fuses.  
消防条例1129规定了引线保护的测试方法

# THREE TEST METHODS

## 三种测试方法

- The Open Flame test conducted with a butane lighter which requires that the fuse cover resist ignition for 5 seconds;  
用丁烷打火机进行明火测试要求引线保护承受5秒
- The Hot Surface test, which is performed by holding a lighted cigarette on fuse cover for 5 seconds; and  
用点燃的香烟热表面接触引线保护5秒
- The Spark Test conducted by aiming a spark-producing device (fountain) at the fuse from a distance of 24 inches for 30 seconds.  
用花筒从24吋处对引线保护喷射30秒

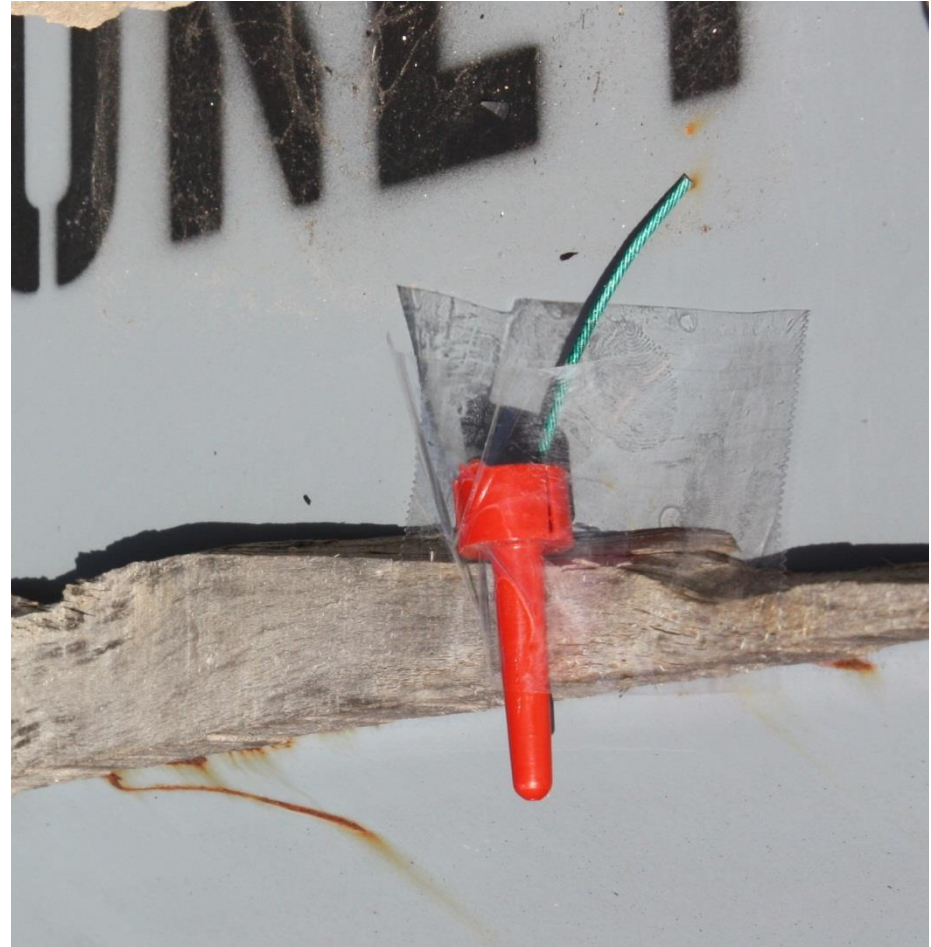


- AFSL Board requested the Standards Committee to consider adding requirement for covered fuses to the AFSL Standards for Consumer Fireworks.

美标董事会要求标准委员会制定相应的美标标准

- The Committee conducted testing at the November 2012 meeting, using the three procedures.

委员会在2012年11月用此三种方法做了测试







# AFSL REQUIREMENT FOR COVERED FUSES

## 美标对引线保护的要求

- “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”.  
符合本标准的烟花必须使用引线保护，且能够承受NFPA1129-2013版所规定的明火，热表面和火花测试，以及美标规定的其它要求。
- Effective Date: August 1, 2015  
生效期为2015年8月1日

# NEW REQUIREMENT FOR LOT I.D. NUMBER AND STICKER LOCATION ON SHIPPING CARTONS

## 纸箱上批次号和标贴的新要求

Purpose 目的:

➤ To assist AFSL technicians in the proper application of Lot. I.D. stamps and stickers.

协助美标检验员正确施行批次号和标贴

➤ To allow CPSC and DOT to more easily locate the Lot I.D. numbers and stickers.

使得消委会和交通部人员更容易找到批次号和标贴

➤ To provide uniformity in the AFSL certification process.

提高美标认证过程的一致性

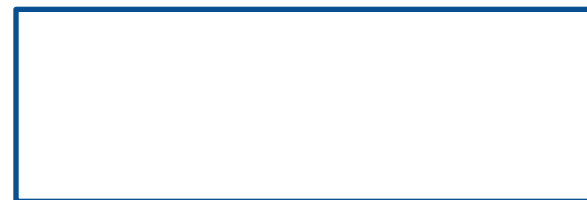
# NEW REQUIREMENT FOR LOT I.D. NUMBER AND STICKER LOCATION ON SHIPPING CARTONS

## 纸箱上批次号和标贴的新要求

Dimensions 尺寸:

For Lot I.D. stamps: 10 x 3 cm

批次号



Sticker: 6 x 4 cm

标贴



# UPDATE ON CPSC AND DOT ACTIVITIES

## 消委会和交通部近况

- **Update on CPSC Break Charge Test Alternative**  
消委会对开爆药的备选测试



# How to Measure Overpressure 如何测试压力

- Dynamic Pressure Sensor Range: 0 – 500 psi
- Pressure Sensor Distance to Shell: 5.5 inches to center
- Data Acquisition Rate: 50,000 acquisitions per second
- Pressure Sensor Sensitivity: 10 millivolts per psi (1 volt = 100 psi)



# Measuring Dynamic Pressure

## 测量烟花开爆时产生的压力



Effects Containment  
Cage 测试笼



Dynamic Pressure  
Transducer 压力感应器

# Measuring Dynamic Pressure

## 测量烟花开爆时产生的压力

- ▣ [Small Reloadable.mp4](#)

# Discussion of Results

## 对于测试结果的讨论

- Large shells produce explosions with pressure waves that are similar to an M-80 at close range.  
大礼花弹产生的爆炸压力近似于M-80炮
- Large shells are designed to function 100+ feet in the air, reducing risk of injury.  
大礼花弹在100尺以上高空开炸，降低了风险
- The AFSL test can distinguish the power of black powder versus hybrid powder versus flash powder, but it does not consider how much powder is present in the shell.  
美标所的测试可以区分黑药，混合药和白药，但未考虑弹中的药量。



# PHMSA FINAL RULE ON EX NUMBER

## APPROVALS ALTERNATIVE

### EX号码审批替代方式的规则

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

2012年8月30日，交通部发布提请制定EX审批的替代程序

- 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.

只针对1.4G烟花，允许向一个烟花认证代理申请EX号

- AFSL and 36 other companies submitted comments to PHMSA.

美标所和其它36家公司就此提交了建议

# PHMSA's FINAL RULE ON EX NUMBER APPROVALS ALTERNATIVE EX号码审批替代方式的规则

- PHMSA's Final Rule issued July 16, 2013 allows FCA's to issue Approvals for 1.4G consumer fireworks.  
交通部于今年7月16日发布规则允许FCA对1.4G烟花审批
- Approvals issued by a FCA's will received a FC (fireworks certification) number rather than an EX number.  
FCA审批的是FC号而不是EX号
- Effective Date: August 15, 2013.  
生效期为2013年8月15日

# SUMMARIES OF PHMSA FINAL RULE ON EX NUMBER APPROVALS ALTERNATIVE EX号码审批替代方式的规则概要

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

美国烟花协会APA87-1（现行2001版）

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.

目前，交通部是按照APA87-1（2001版）标准审批EX号。待APA制定新版本后，将考虑采用新版87-1标准。



# Who Can Become An Approved FCA?

## 谁能成为FCA?

- Any organization or person seeking to become an approved fireworks certification agency must apply in writing to PHMSA.  
任何组织和个人都可提交书面申请
- AFSL/SGS will apply to become a recognized FCA.  
美标/通标将申请成为认可的FCA
- Application may be submitted starting August 15, 2013.  
8月15日可以开始申请
- Approval of application by PHMSA is expected to take several months. 可能需要几个月时间
- We will provide update at our October 2013 seminar.  
我们在10月的研讨会上会有进一步汇报

# REPORT FROM SGS 通标公司报告

**Ms. Pauline Cheung 张玉英**

**Director of China Inspections, SGS 中国检验总监**

## UPDATE ON CTS 集中测试现状

- AFSL started testing at the CTS in the Liuyang area in September 2012. 去年9月在浏阳地区开始
- Operations have temporarily been suspended as of April 2013. 今年4月暂停
- We are working diligently to open CTS' in all regions within China including the Liuyang area. 我们正努力争取在各地开发集中测试场地
- Our plan is to convert to CTS' in all regions at the same time. 计划在各地同时开始
- Our expectation is to have the CTS' operating by the 2<sup>nd</sup> half of 2014. 期望在明年下半年开始

## INTERIM OPERATIONAL PLAN 目前暂行

- Temporarily we are testing again at individual factory locations. 暂时在工厂测试
- AFSL/SGS Technician Teams are dispatched to sample, test, and certify passing lots on-site. 派出测试人员在现场抽样，测试并认证合格批次

## SGS PROJECT MANAGER 项目经理

- Jason Du was appointed to Project Manager in May 2013. 五月指派杜建设为项目经理
- Introduce Jason Du. 介绍

# QUESTION & ANSWER PERIOD

**how**

**where**

**when**

**who**

**why**

**what**



[WWW.AFSL.ORG](http://WWW.AFSL.ORG)

THANK YOU!

