

A F S L N E W S

NEWS IN BRIEF

RELOADABLE TUBES MUST WITHSTAND SHELL MALFUNCTION. A new provision for reloadable shell devices requires tubes to withstand the explosion of a shell inside the tube without rupturing. AFSL tests by inserting one shell upside in the tube and igniting it. If the tube ruptures or the base shatters, the item will fail. The action is intended to reduce the potential for injury to consumers by containing a shell that malfunctions inside the tube. **Page 1.**

CHANGES TO EX NUMBERS PROGRAM ANNOUNCED. A representative from the U.S. Department of Transportation announced the agency is planning to withdraw approximately 2000 EX Numbers currently in use. Owners of the numbers must apply to have new numbers issued. The withdrawal is expected in the summer of 2005 with a grace period of one year. The announcement was made in a seminar in Chang Sha, Hunan sponsored by AFSL and APA. AFSL will assist factories in submitting applications for new numbers at no charge. **Page 1.**

HARD DISCS ELIMINATED IN AERIAL DEVICE INSERTS. Hard discs that may act as a projectile may no longer be used in aerial shell inserts. Includes concrete composites, rigid plastic, wood, hardened saw dust, clay treated with a binder to harden it, and metal. **Page 3.**

AFSL HIRES PROGRAM LIAISON IN CHINA. AFSL hired William Zhou, formerly of Intertek Testing, to work as a China Liaison on behalf of AFSL. Beginning August 1, he will monitor program operations and assist members in meeting AFSL requirements. **See page 2.**

CHANGES TO EX NUMBERS PROGRAM ANNOUNCED BY DOT AT SEMINAR IN CHANG SHA, HUNAN

At a seminar hosted by AFSL and APA in Chang Sha, Hunan, the U.S. Department of Transportation (DOT) announced major changes in the way EX Numbers are issued for fireworks shipped to the United States.

Dr. Richard Tarr, Director of the Office of Approvals for DOT, advised the industry that approximately 2000 EX Numbers currently being used by the manufacturers, shippers and U.S. importers will be withdrawn within the next year. Companies using the numbers must apply

for new EX Numbers to comply with the DOT requirements that all fireworks imported into the U.S. have a valid EX Number.

In his first meeting with the fireworks industry in China, Dr. Tarr also stated that all EX Numbers eventually will have an expiration date assigned to them, making it necessary for owners of the EX Numbers to apply for re-issuance of the numbers after 5 years.

Dr. Tarr and Dr. John Conkling, AFSL Director and Technical

Advisor, spent the morning describing the upcoming changes and responding to questions from the factories. They stated there will be a transition period of approximately one year to allow companies to apply for new EX Numbers. This transition period will reduce the impact of the DOT action on companies required to apply for new numbers.

Dr. Tarr and Dr. Conkling also developed and distributed to semi-

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TEST CRITERIA SET FOR RELOADABLE TUBE MALFUNCTION REQUIREMENT

AFSL has begun testing reloadable tube aerial shell devices for compliance with a new provision requiring launcher tubes to withstand the malfunction of a shell inside the tube without rupturing. Effective August 1, 2005, all reloadable shell devices submitted to AFSL for testing are being tested for conformance with the new provision. The test

is conducted by placing one shell packaged with the reloadable kit inside the tube upside down. If the retail package includes shells of different pyrotechnic weights, AFSL technicians select the heaviest shell for testing.

Only one shell is fired in each tube tested, and for the typical lot size, 5 tubes will be tested to confirm compliance. Any rupturing

of the tube, separation from the base, or the expulsion of any debris or shrapnel from the device will cause the shipment to fail.

Factories and Shippers were notified of the new provision in March and April, immediately following the February 2005 decision by the Board to approve the requirement.

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RELOADABLE TUBES

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AFSL included training for the test in a July 2005 Training Seminar for all technicians to assure uniformity in the application of the procedures.

For the past few months, AFSL has consulted with a number of factories that have been evaluating different methods of meeting the new criteria. It is believed many factories already have changed their production to strengthen tubes to comply with the test.

Due to the low volume of testing during the month of August, it is too early to gauge how much of a challenge the factories are facing in meeting the new standard. Only 56 tests of reloadable shells subject to his provision were conducted during August. Seven (11%) failed due to tube malfunction.

When the Standards Committee tested 14 different models of reloadable shells last spring, only six models passed the malfunction test. Last year, reloadable shells represented approximately 14% of all tests performed by AFSL. This means that a significant failure rate in this category could negatively impact the overall compliance rate for fireworks imports.

The decision to include the launcher tube malfunction test was in response to concerns raised following an incident involving the death of a four year old girl who reportedly was struck by a component of a reloadable tube aerial shell device. The reloadable shell standard already requires launcher tubes to withstand twice the number of intended firings without blowout. The Standard also requires that such devices identify the correct placement of the shell inside the launcher tube by the use of an "UP" arrow on cylindrical or other non-spherical shapes.

AFSL ADDS CHINA LIAISON OFFICER TO QIP IN CHINA

AFSL has hired a Liaison Officer in China to coordinate activities under the China Fireworks Quality Improvement Program (QIP). Mr. William Zhou, formerly the Supervisor of Technicians at AFSL's testing laboratory, Intertek Testing Services, resigned from that post and will work directly for AFSL as an independent contractor.

Mr. Zhou will be the contact person for factories or Shippers who have questions or concerns about QIP operations. He also will provide technical assistance to the factories and shippers on such matters as new requirements of the Standards, and will periodically review with the factories the test results for products tested by AFSL.

One of Mr. Zhou's first assignments is to begin meeting with factories that have a significant number of shipments failed under the QIP. This is an effort by AFSL to assist factories in improving their compliance with the Standards by correcting repeat failures.

In announcing Mr. Zhou's appointment, John Rogers, AFSL's Executive Director stated "William's job here in China is to be an extension of our office in the U.S. He is our eyes, ears, and voice here on the ground, and should be the first point of contact whenever a program participant needs assistance from AFSL."

"William's addition to our pro-

gram is filling a need we have had since AFSL started operations in China", according to Rogers. "We are fortunate our program has expanded and we can now fulfill that need."

A F S L considered several candidates for the liaison position before deciding on Mr. Zhou. "We believe William is a great choice for this position," said Mr. Rogers. "He obviously knows the program

well. He has a very positive working relationship with the factories and Shippers."

"Because of William's long association with Intertek, our biggest challenge is to convince factories that he now operates independently of ITS, Mr. Rogers continued. "In short, they will have to learn to trust him to address their specific interests, and I am confident that over time they will."

Effective October 1, 2005, Mr. Zhou will begin operating from an office based in Liu Yang, Hunan. He also will travel frequently to AFSL Operations Centers in Beihai and Guangdong Province.

Program participants may contact Mr. Zhou on telephone number: 13874903088; Or by Email at: William.Zhou@afsl.org.



William Zhou, newly hired AFSL China Liaison Officer began working in China August 1, 2005.

HARD DISCS IN AERIAL SHELL INSERTS ELIMINATED IN STANDARDS

At the February 2005 meeting, the Board of Directors approved a new provision eliminating hard discs that can act as a projectile in aerial shells inserts. The Standard for Comets, Mines, and Shells was amended to include the language: ***“Insert tubes with break charges in mine/shell devices shall not contain pressed clay plugs, or separators, or any other hard internal components capable of acting as a projectile when the insert bursts.”*** The modification is intended to eliminate the potential risk of injury associated with hardened plugs or separators that become projectiles, either when the shell malfunctions near ground level, or when the plugs fall back to the ground after normal functioning of the aerial shell.

Traditionally, factories used pressed clay for plugs or separators which tends to break apart when the shell functions. In recent years, however, there has been a move toward replacing pressed clay with other materials, such as concrete or

gypsum composites, or clay that has been treated with binders to harden it.

While the Board set August 1, 2005 as the implementation date for the new requirement, it requested that Standards Committee develop guidelines to assist manufacturers in defining the types of materials that would be likely to fail the new provision. The Board also requested clarification of the test procedure to be used in determining compliance with the new standard.

Because the Standards Committee did not meet prior to the August 1st effective date, AFSL delayed implementation of the provision until the Committee could develop the requested guidelines.

At a recent meeting, the Committee developed a guideline stating the type of materials likely to fail the provision include: concrete or similar composites; hard pressed clay that has been treated with a binder that causes it to harden; concrete or similar composites; wood or sawdust that has been treated with a binder that causes it to harden; rigid plastic; and metal.

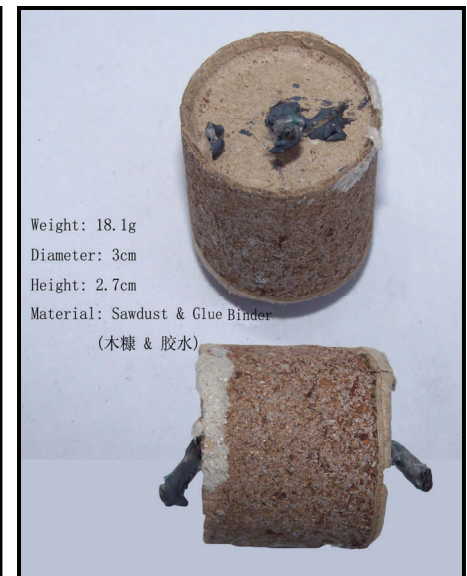
The Committee developed a test

to determine hardness of the plug, separator, or hard internal components by pressing it with a vise. The component will be pressed inside the tube after the pyrotechnic material has been removed.

If the material does not disintegrate or crumble when the insert containing the plug is compressed to 75% of its original diameter, the item will fail the Standard. The guideline does not include specific size or weight limitations for particles remaining after the compression test.

In developing this guideline, the Committee relied on comments for the Hong Kong Pyrotechnics Association as well as test data submitted by the testing laboratory regarding the types of materials currently being used in the manufacture of aerial shell devices.

The Board of Directors will review the guidelines developed by the Standards Committee at the September Board meeting. If approved, the Board also will establish a new implementation date for the provision.



Photographs of different materials currently being used by factories in the manufacture of aerial shell inserts. Materials likely to fail the new AFSL Standard include concrete composites; clay with a binder to harden it; rigid plastic, saw dust with a glue binder, wood, or metal.

CHANGES IN EX NUMBERS

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nar participants a revised EX Numbers application form that companies may use to apply for new numbers. The form, published in both English and Chinese languages, is redesigned to help to streamline the process of applying for EX Numbers.

The new application form, along with a list of the EX Numbers to be withdrawn will be available for industry members on both the AFSL website, www.afsl.org; and the APA website, www.americanpyro.com.

1.4G Reloadable Shells and Kits

Dr. Tarr also announced that DOT intends to withdraw all existing 1.4G approvals for "bulk" aerial shells. Some of these approvals for items such as "Holiday Shell" and "Festival Ball" were issued years ago, and these EX Numbers have continued to be used to import into the U.S. cases of bulk shells for repackaging into reload-

able shell kits. DOT believes that these devices in bulk form are properly classified as 1.3G fireworks.

Under the AFSL Standard for Reloadable Shells as well as the APA Standard 87-1, reloadable shell kits are limited to a maximum of 12 shells and a total of 400 grams of pyrotechnic composition per retail package. Each retail package also must contain one launcher tube.

The DOT notice, expected to be published in July or August 2005, will advise the industry that all reloadable shell kits imported into, or shipped domestically in commerce in, the United States will now have to comply with the limits described above for transportation as 1.4G fireworks.

Exceptions to Requirement for Issuance of New Numbers.

Dr. Tarr also stated that the only exception to the requirement for the issuance of new EX numbers will be for approvals that have gone through the normal DOT approval process that requires the testing of

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CANDIDATES FOR BOARD OF DIRECTORS ELECTIONS

Three seats on the Board of Directors are up for re-election at the September 21, 2005 General Membership Meeting in San Francisco, CA. Terms are expiring this year for three sitting directors: Tad Trout of American Promotional Events who currently is President of AFSL; Alan Zoldan of B.J. Alan Company and Vice President of AFSL; and Lee Gilder, President of Longhorn Manufacturing Company.

Tad Trout and Alan Zoldan have been nominated for re-election to the Board. Lee Gilder has decided to retire from the Board, effective in September.

Chester Davis, of Ches-Lee Enterprises, has been nominated by the Elections Committee as a candidate for the Board. Mr. Davis is CEO of his company and also serves on the Board of the American Pyrotechnics Association and the National Council on Fireworks Safety.

Ballots have been distributed to all AFSL Members In Good Standing. This includes importers that have provided to AFSL documentation showing they imported the minimum of 556 cases of fireworks during the past year; or Shippers that have shipped to a participating U.S. importer during the past year.

Only three candidates appear on the ballot this year because the Nominating Committee was unable to persuade any other potential nominees to run for a seat on the Board. However, nominations will be taken from the floor at the General Membership Meeting. All AFSL Members in Good Standing are eligible to nominate a candidate for the Board, and to vote for candidates.



Participants in EX Numbers Seminar in Chang Sha. From left: John Conkling, Julie Heckman, Mr. Li, President of Liu Yang Fireworks Admin. Bureau, John Rogers, and Richard Tarr.

NEW STANDARDS BOOKS ISSUED TO PARTICIPANTS

AFSL has re-issued the AFSL Standards for Consumer Fireworks to program participants in China and in the U.S. The book, published in both Chinese and English languages, was released at a training seminar in Chang Sha Hunan. It also is being distributed directly to factories in China, Shippers in Hong Kong and China, and to importers in the U.S.

The publication is the fourth edition of the AFSL Standards, the last of which was issued in March, 2001. Since that time, a significant number of changes to the Standards have been implemented, making the March 2001 edition obsolete. The new book, identifiable by the date February 2005 on the inside cover page, contains all modifications that have been approved by the Board of Directors through February of this year. Because the binder cover has not been changed, companies may continue to use the binder if they wish to insert an updated copy of the text of the standards.

While the re-publication was planned for last year, AFSL withheld issuance so that several major changes expected in 2005 could be incorporated.

Program participants will receive one copy of the Standards at no cost. Additional copies may be purchased for US\$20 (RMB160), which covers the cost of printing, binding, etc. Any factory or Shipper participant that has not already received a current copy of the Standards should contact the local AFSL office in Liu Yang, Beihai, or Guangzhou to obtain a copy. U.S. importer participants may obtain additional copies of the Standards by contacting the AFSL headquarters office.

The Standards also are posted on AFSL's website at www.afsl.org.

MODIFICATIONS TO EX NUMBERS PROGRAM EXPECTED THIS YEAR

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packaged fireworks products by an authorized testing laboratory. He advised companies holding such approvals to contact DOT to determine if their approvals are affected. Copies of the test reports that accompanied the submissions of such approval requests should be available for re-examination by DOT.

Following the EX Numbers presentation, APA Executive Director Julie Heckman updated the industry on recent APA activities, including a series of public safety campaigns.

Ms. Heckman stated that fireworks imported into the United States are safer than they have ever been and applauded the manufacturers efforts in improving the safety of their products. She showed statistics indicating that the rate of injuries associates with fireworks declined to the lowest level on record, while the volume of fireworks used in the U.S. has more than doubled in the past ten years.

Ms. Heckman credited factories complying with the AFSL Standards as a major reason why the injury rates are declining and encouraged manufacturers to continue to have products tested through the AFSL program or other third party testing service similar to AFSL.

In the afternoon of the seminar, Dr. Conkling and John Rogers reviewed several modifications to the AFSL standards that will be implemented later in the year. Included were new requirements for Roman Candles; Reloadable Shell designs, labeling, and launcher tube test; and a



Richard Tarr observes pyrotechnic weight measurements by AFSL Technicians.

new provision prohibiting hard discs in aerial shell inserts. They fielded a barrage of questions from factories regarding the changes and how they would affect production of covered products.

AFSL also issued to all seminar participants copies of the newly revised AFSL Standards book, replacing the March 2001 edition of the Standards.

Following the seminar, the delegation toured a fireworks factory in Liu Yang, China to give Dr. Tarr the opportunity to view firsthand the production of fireworks in China. He witnessed the production of several types of

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fireworks including rockets, mine and shell devices and several small specialty items.

The group also toured the AFSL Operations Center in Liu Yang and received a briefing on how AFSL manages the testing program. They witnessed some of the laboratory testing that is performed, including the weighing of pyrotechnic composition. They also visited a warehouse where AFSL technicians were testing samples from shipments that were waiting to be certified.

AFSL expressed appreciation to the industry for the high level of participation by the factories. The number of attendees was quite high, particularly in view of the fact that the seminar was held during one of the busiest weeks of the fireworks manufacturing season.

Participants observed that while the EX Numbers program modifications will create a significant burden to the industry, information provided during the seminar and the promise of assistance from AFSL and APA should help to ease the burden.

AFSL will continue to assist factories, shippers and U.S. importer members in completing and submitting applications through Mr. Hugh McCutchen, AFSL's Consultant on EX Numbers applications. Depending on the number of applications received for processing by Mr. McCutchen, AFSL also may offer assistance in processing applications through Intertek Testing Services in Hong Kong and China, again at no cost to AFSL members.



Julie Heckman tours local retail fireworks stand to Liu Yang, Hunan, China.

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