Ohio Department of Commerce

Division of State Fire Marshal

8895 East Main Street
Reynoldsburg, Ohio 43068
www.com.ohio.gov

Fireworks 2013

Department of Commerce
Division of State Fire Marshal

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Table of Contents

Fireworks Contact Information ..... Page 3

Frequently Asked Questions ..... Page 5

Do's & Don't for Fire Departments ..... Page 10

Weather Related Guidelines ..... Page 11

Fireworks Fact Sheet ..... Page 14

Outdoor Firework Displays ..... Page 16

Pyrotechnics Before a Proximate Audience ..... Page 32

Flame Effects ..... Page 45

Temporary Storage ..... Page 57

Fireworks Facility Safety Officer Duties ..... Page 60

Manufacturers, Wholesalers, & Shippers ..... Page 61

Official Notification ..... Page 62

Reference Page ..... Page 63

Ohio Fire Code 1301:7-7-33 ..... Page 64

Ohio Revised Code 3743 ..... Page 172

State Fire Marshal Documents ..... Page 218

American Pyrotechnics Association ..... Page 232

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614-752-8200	phone
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Fireworks Contact Information

Emergency Assistance for Incidents **Storage of Confiscated Fireworks**	**Investigations**	**614-752-7107** **800-589-2728**
Firework License **License Verification** **Background Checks** **Red Book**	**Testing & Registration** **webfmtr@com.state.oh.us**	**614-752-7126** **877-264-0023**
Exhibition Permits **Variance Requests** **Reporting Incidents** **Inspections** **Illegal Sales** **Construction**	**Code Enforcement**	**614-728-5460** **888-276-0303**
Continuing Education **Registration/Certificates** **Training**	**Fire Academy**	**614-752-7196** **888-726-7731**

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Frequently Asked Questions

Frequently Asked Questions

Q. Who should I contact if I find illegal fireworks or have a fireworks incident and need assistance?
A. The discovery of illegal fireworks or any fireworks incident which results in injuries or property damage shall be reported to the fire code official immediately. The local fire code official shall immediately make a report to the fire marshal. This can be done by calling the Investigations Bureau (614-752-7107) during business hours, or the emergency number (800-589-2728) after hours. State Fire Marshal (SFM) inspector(s) and/or investigator(s) will then be dispatched to your location.

Q. Does Ohio law require a license for the sale and use of fireworks?
A. Yes, manufacturers, wholesalers, exhibitors and shippers of fireworks must have State Fire Marshal (SFM) issued licenses for fireworks use. Renewal for all licenses is required each year.

Q. Can I get a license to sell fireworks?
A. Not at this time. There is a moratorium on the issuance of additional fireworks manufacturers and wholesalers licenses in effect until December 15, 2015 (ORC 3743.75). By law the State Fire Marshal can only issue licenses on December 1st of each year. If the current moratorium is not extended, applications for new licenses will be accepted beginning September 1, 2016. The first time a new license may be issued would be on December 1, 2016.

Q. As a citizen of the State of Ohio, can I buy and use fireworks?
A. Yes, you may buy consumer or 1.4G fireworks from a licensed wholesaler or manufacturer; however, you cannot discharge any consumer or 1.4G fireworks in the State of Ohio. You must transport all fireworks purchased in Ohio out of the state within 48 hours of the purchase. The only items that can be used in Ohio are designated "trick and novelty" which smoke, pop, and/or sparkle. In Ohio, use of 1.4G fireworks (fire crackers, bottle rockets, etc.) is illegal. (ORC 3743.65 (B))

Q. Where can I find Ohio's laws that regulate fireworks?
A. Ohio Revised Code (ORC) Chapter 3743 and Ohio Fire Code (OFC) 1301:7-7-33 are the code references that govern fireworks in Ohio. These publications can be found online at http://codes.ohio.gov/ and http://www.com.ohio.gov/fire/docs/fire_1301-7-7-33ExplosivesAndFireworks.pdf

Remember that the most current version of the Ohio Fire Code went into effect on November 1, 2011, so make sure you are following the most current version of the rules governing fireworks.

Q. In addition to the Ohio Revised Code (ORC) and the Ohio Administrative Code/Ohio Fire Code (OFC), what other laws and regulations apply to the manufacturing, distribution, transportation, storage, sale, exhibition/display, use or possession of fireworks?
A. Federal regulations applicable to fireworks are contained in the Code of Federal Regulations (CFR), including the following:

1. Title 16 (Consumer Products) of the CFR, part 1507 (Fireworks Devices);
2. Title 27 (Commerce in Explosives) of the CFR, part 555;

3. Title 49 (Transportation) of the CFR, parts 172, 173 and 174;
4. Federal Explosive Law and Regulations (also known as the "Orange Book") ATF P 5400.7, Title 27, Part 55;

Visit this link to view the CFR: http://www.usa.gov/Topics/Reference_Shelf/Laws.shtml

As a part of the Ohio Fire Code, the SFM includes portions of various national model codes. For fireworks, the OFC adopts by reference certain National Fire Protection Association (NFPA) Standards, which have the full force of law in Ohio to the extent those standards are incorporated into Ohio law. The fireworks specific NFPA standards are:

1. NFPA 1123, Code for Fireworks Display - 2006 Edition;
2. NFPA 1124, Code for Transportation and Storage - 2006 Edition;
3. NFPA 1126, Standards Before a Proximate Audience - 2006 Edition;

To obtain a copy of the relevant NFPA standards, call 1-800-344-3555.

Q. What are the continuing education requirements for manufacturers?
A. Each year, manufacturers or their designee shall attend a continuing education program approved by the State Fire Marshal. The fire marshal shall develop the program and the fire marshal or a person or public agency approved by the fire marshal shall conduct it. Within one year after attending the program, the manufacturer shall conduct in-service training for its other employees regarding the material presented during the manufacturer's continuing education class.

Q. What are the continuing education requirements for wholesalers?
A. Each year, wholesalers or their designee shall attend a continuing education program approved by the State Fire Marshal. The fire marshal shall develop the program and the fire marshal or a person or public agency approved by the fire marshal shall conduct it. Within one year after attending the program, the wholesaler shall conduct in-service training for its other employees regarding the material presented during the wholesaler's continuing education class.

Q. Why are there so many rules and regulations for fireworks?
A. The primary laws regulating fireworks in Ohio were passed by the Ohio legislature and are contained in ORC Chapter 3743. The OFC is written to supplement the provisions of the ORC. As required by the ORC, the OFC incorporates several NFPA Standards. These laws exist to protect the public and to regulate the fireworks industry in a fair manner.

Q. What is the difference between 1.1G, 1.2G, 1.3G, 1.4G and 1.4S fireworks?

A. Per section 3302 of the Ohio Fire Code, fireworks have specific definitions. The main categories of fireworks are commonly known as display and consumer fireworks.

Display fireworks, used by licensed exhibitors in accordance with a specific exhibition permit, are:

> **"1.1G Fireworks"** are display fireworks that are greater than 10" in diameter. The Department of Transportation (DOT) classifies 1.1G as explosives that have a mass explosion hazard. It is illegal for anyone to

possess 1.1G fireworks in Ohio unless you have a specific license to do so. An exhibitor must have a permit issued for a fireworks exhibition before he can possess and use 1.1G fireworks. Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.1G (UN0333) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.

"1.2G Fireworks" are not commonly used at a fireworks exhibition. It is illegal for anyone to possess 1.2G fireworks in Ohio unless you have a specific license to do so. An exhibitor must have a permit issued for a fireworks exhibition before he can possess and use 1.2G fireworks. Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.2G (UN0334) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.

"1.3G Fireworks" are used by Ohio licensed exhibitors and are often called display fireworks. The use and storage of such large fireworks are strictly regulated by the state and the Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE). It is illegal for anyone to manufacture, possess, use, or store 1.3G fireworks in Ohio unless you have a specific license to do so. An exhibitor must have a permit issued for a fireworks exhibition before he can possess and use 1.3G fireworks. Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.3G (UN0335) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.

"1.4S Fireworks" are Special Effects Fireworks and are used indoors by Ohio licensed pyrotechnic exhibitors. They are used for theatrical productions, concerts, or other special events and are labeled as UN0337. Some special effects fireworks can be labeled 1.4G and classified as "Article, Pyrotechnic" UN0431. These and 1.4S fireworks are not sold to the general public.

1.1G, 1.2G and 1.3G fireworks are used in outdoor exhibition settings, while 1.4G (defined below) and 1.4S fireworks may be used at either indoor or outdoor displays.

Consumer fireworks, which can be purchased in Ohio by the general public but can only be discharged by a licensed exhibitor in accordance with a specific exhibition permit (the unlicensed consumer must transport the fireworks out of state within 48 hours of the purchase), are:

"1.4G Fireworks" fireworks may be found in a licensed fireworks showroom and sold to the public at various retail locations across Ohio. 1.4G fireworks are sometimes called consumer fireworks and are labeled UN0336. If you chose to purchase 1.4G fireworks, you have 48 hours to take the fireworks out of Ohio.

Q. Are M80's, M100's, and quarter sticks considered fireworks?
A. M80's, M100's, quarter sticks and similar devices are explosive devices, not fireworks. Such devices are not considered fireworks because, in 1976, the United States Consumer Products Safety Commission determined that no more than 50 milligrams of powder can be used in 1.4G consumer fireworks (1.4G fireworks must have fuses that last at least 3 seconds, but no longer than 9 seconds) and any devices that contain more than 50 milligrams of powder (like many cherry bombs, silver salutes, M80's, M100's and quarter sticks) are defined as explosives. Since these devices are explosives, such devices are illegal for anyone to possess without a special license and/or permit. See ORC 2923.17 for more details.

Q. Can a licensed exhibitor store 1.3G (display) fireworks or 1.4G (consumer) fireworks in an Bureau of Alcohol, Tobacco, Firearms and Explosives (BATFE) approved magazine at his/her residence or other location?
A. No. Only licensed wholesalers and manufacturers can store 1.3G (display) fireworks or 1.4G (consumer) fireworks in Ohio. When the fire code official having jurisdiction issues a permit for the exhibition of fireworks for a specific site, that official may also issue a TEMPORARY storage permit for fireworks to be used in that exhibition. The storage must be at the same site/area of the actual scheduled exhibit. Pursuant to such a storage permit, all fireworks to be used in the exhibition must be stored in an approved magazine. These fireworks can be stored for up to 72 hours unless specific fire code official approval for a longer period (of up to 14 days) is granted in accordance with the Ohio Fire Code. See OAC 1301:7-7-33(J), OFC 3310 for more details.

Q. Where are the requirements for out of state shippers located?

R.C. 3743.58 and 3743.66 and OAC 1301:7-7-33(R), OFC 3318 requires any person shipping fireworks into Ohio to obtain a fireworks shippers license from the State Fire Marshal's office. Out-of-state shippers should be aware that other applicable federal and state laws, including USDOTn and State of Ohio PUCO transportation regulations still apply to such shipments, and a license from State Fire Marshal's office does not exempt shippers from those regulatory requirements.

The Do's and Don'ts for Fire Departments

The use of fireworks to celebrate holidays is a time-honored tradition. Many Fire Departments take a lot of pleasure in legally providing the annual fireworks display for their community. Others hire exhibitors to perform the festivities. It is important for fire departments around the state to be knowledgeable about the laws and regulations on fireworks. The possibility of an incident is only one fuse away.

Don'ts for Fire Departments

1. Don't assume that an exhibition at your local park is an appropriate site for a display, even if the show was held there previously. Remember that spectator distances require a minimum of 70 feet per inch of the largest shell. For example, if you have 450 shells including: 4", 6", 8", 10", and one 12". That single 12-inch shell requires that all spectators have a minimum distance of 840 feet. Any less distance and you are subject to criminal and civil litigation, the fire service field is not exempt from the regulations set by the NFPA 1123.
2. Don't assume the insurance policy issued by the city or township for the fire department covers the exhibition of fireworks. Each exhibitor shall provide a bond or proof of insurance in the amount of at least 1 million dollars.
3. Don't allow drivers without a CDL and HAZMAT endorsement to transport fireworks that affect interstate commerce.
4. Don't assume federal law exempts you from state law. In some instances, fire departments have been exempt under federal law to purchase 1.3G fireworks. Ohio law states that only Ohio Licensed exhibitors can possess 1.3G fireworks.

Do's for Fire Departments

1. Do review the Ohio Supreme Court decision case # 00-1904 Deborah Ryll, et al vs. City of Reynoldsburg. Sovereign immunity may not apply since sponsoring a fireworks exhibition is not a governmental function. If a fire department is the sponsor, site, exhibitor, regulator, purchaser, or signer of the checklist they may incur liability. Consult with legal counsel while going through the fireworks exhibition process.
2. Do check all licenses. Shippers, exhibitors, and assistants are required to carry their license when preparing for and during an exhibition. Verify expiration dates. Shippers may ship to a licensed manufacturer, wholesaler, or directly to a licensed exhibitor at a properly permitted exhibition site.
3. Do hold a meeting with the fire and law enforcement officials to decide who will provide temporary storage of the fireworks in the district where the permit was issued. Make sure storage meets the approved table of distances.
4. Do identify personnel. If this is an in-house exhibition, the firefighter cannot be the exhibitor and the safety inspector at the same show. Each person should only be assuming one role.
5. Do determine who will provide security during the exhibition to ensure spectators stay in the designated areas.
6. Do determine who is responsible to provide emergency response to injury, accident, or fire. You should prepare for everything from a grass fire to a fatality.
7. Proper distance and rack stability are paramount to any successful fireworks exhibition. Do check both of these key items.
8. Should an incident occur, do secure the area and take the necessary steps to make the area safe. Notify the Division of State Fire Marshal immediately and hold the scene secure until released.

Weather Related Guidelines
NFPA 1123, 2006 Edition

The exhibitor and the authority having jurisdiction (AHJ) should discuss all possible weather conditions during the exhibition planning stages. A plan should be in place for any potential weather situation.

Being prepared to react to changing weather conditions is essential for a successful exhibition in undesirable conditions. Always remember to cover and secure fireworks from all moisture. It is the responsibility of the operator and AHJ to evaluate weather conditions and the display site to determine if the discharge can proceed safely. Always check to see if a "No Burn" notice has been issued. Use extreme caution in dry places or areas that might be more sensitive to fire.

It's Ohio ….. anything can happen !

Light Wind - Some wind speed is favorable during an outdoor exhibition as it allows for smoke to clear. Wind conditions within this range are usually acceptable for exhibition and in predicting the appropriate fall out distances.

Moderate Wind - Extra precaution will be required for any wind speed within this range; including expanding fall out areas which may include relocating spectators, angling of the mortars, removing larger shells from the performance and even moving the discharge areas.

High Wind - High winds may radically change the performance of fireworks and the distances required for a safe exhibition. It is the responsibility of the AHJ and the operator to determine if a show can proceed in a safe and efficient manner.

Rain and Snow - Exhibition of fireworks may occur in the rain or snow as long as special precaution has been made to ensure all fireworks remain dry until the time of discharge.

Lightning - Whenever there is a possibility of lightning, all work involving fireworks shall temporarily stop until conditions improve.

4.4.3.2 Weather-resistant coverings shall be placed over the mouth of mortars wherever there is imminent danger of water collecting in the mortars.

8.1.4.2 If high winds, precipitation, or other adverse weather conditions prevail or begin such that a hazard exists in the opinion of the operator or the AHJ, the fireworks display shall be postponed or discontinued until weather conditions improve.

8.1.7 Pyrotechnic materials used in the display shall be protected from adverse weather conditions.

8.1.8 Moisture damaged pyrotechnic materials shall not be used.

9.4.4 When a serious electrostatic discharge hazard exists, such as during an electrical storm, all electrostatic discharge-sensitive operations shall be suspended, and personnel shall withdraw to a safe location.

A.8.1.4.2 In considering when wind speed is excessive for the reasonably safe performance of a fireworks display, there are two primary considerations as follows:

(1) The potential for an increased risk of hazardous debris from the display falling into the spectator areas
(2) The potential for an increased probability of fire that is made excessively difficult to control

An increased fallout hazard occurs when the wind is traveling in a direction toward one or more spectator areas. Under these circumstances mitigation strategies that should be considered are as follows:

(1) To move the spectators out of the path of the fallout
(2) To redirect the fallout by moving the fireworks or re-angling the mortars
(3) To increase the separation distance between the fireworks and the spectators
(4) To modify the content of the display to eliminate the fireworks of greatest concern
(5) To delay the display until the weather conditions have improved
(6) To implement a combination of these strategies

Some possible mitigation strategies to be considered regarding fire risks are as follows:

(1) To water down the areas and items of concern immediately before the display
(2) To redirect the fallout by moving the fireworks or re-angling the mortars
(3) To increase the separation distance between the fireworks and the areas containing the fire hazards
(4) To modify the content of the display to eliminate the fireworks of greatest concern
(5) To increase the amount of suppression equipment and personnel in the immediate area
(6) To delay the display until weather conditions have improved
(7) To implement a combination of these strategies

E.2.2 Whenever any condition deemed hazardous by the AHJ or the operator arises before or during an outdoor display, the display should be interrupted or postponed until the condition is corrected or the hazard is abated. Such conditions might include adverse weather conditions or crowd behavior.

Weather Related Guidelines to follow When Conducting Outdoor Fireworks Displays.
Current code from NFPA 1123: **Chapter 8 Operation of the Display**

8.1.4.2 If high winds, precipitation, or other adverse weather conditions prevail such that a significant hazard exists in the opinion of the operator or authority having jurisdiction, the fireworks show shall be postponed until weather conditions improve to a reasonable level.

8.1.7 Measures shall be taken to protect all pyrotechnic materials to be used in the display from adverse weather conditions. Moisture damaged materials shall not be used.

The Guidelines below are not part of the requirements of any NFPA document but are distributed for professional guidance only.

Wind Speed Requirements (May vary due to local and state laws)

0 to 14 mph / These conditions are the most desirable when complying with safety distances and the general information found in 2000 Edition of NFPA 1123, Code for Fireworks Displays, **Chapter 3 Display Site Selection.**

15 to 21 mph / Land displays with limited fallout areas may require added caution and may require a pre-display test shot to determine if adjustments need to be made.
Note: Displays being discharged next to or on the water may tolerate the higher winds generally due to the larger fallout areas and as long as the winds are blowing in the proper direction for the specific display site.

Winds greater than 21 mph / Display may either be safely fired, postponed temporarily or canceled until conditions are deemed acceptable by the local AHJ and the Display Operator in charge.

Rain and Snow / Outdoor fireworks displays may be discharged during rain and snow as long as proper provisions have been made to keep all fireworks and pyrotechnic devices dry up to the time of discharge.

Lightning / When lightning occurs near the local area around the fireworks discharge site, work must temporarily cease until the danger passes, especially if the fireworks and pyrotechnic devices are electrically matched for electronic discharge.
Individuals must retreat to either a vehicle which has **NO** electrically matched fireworks loose or un-shunted, or to an enclosed structure if near the discharge site.

Note: Always be **prepared** to react to approaching and changing weather conditions at a moments notice, **Cover, secure and get to safety until it is safe to resume normal activity!**

Remember, all decisions made which relate to weather conditions and safety issues in general will be made by the Local AHJ and the Display Operator in charge.
Decisions will vary since each display site will be different.

Fireworks Fact Sheet

Exemptions from provisions: Several types of 1.4G fireworks are exempt under Ohio Revised Code Section 3743.80 including toy pistols, toy canes, toy guns, novelties, trick noisemakers, and sparklers on a wire stick.

Here are additional tricks and novelties that are exempt under Ohio's law:

PUNK
Jumbo punk 19"
Punk 10 ½"
Punk bag

SMOKE ITEMS
#3 smoke cone
Baby smoke cone bag
Cap stick no report
Color smoke balls
Color smoke balls with header
Colored smoke cracker
Giant smoke missile
Hand grenade smoke
M-80 smoke
Mammoth extra large smoke
Smoke cartridge
Smoke pot
Smoke screen tube
Smoking battleship
Smoking fountain
White smoke balls with header

SNAKES
Black snakes
Colored snakes
Glow worms
All Snakes
Snakes (assorted)

SNAPS & TOY TRICK NOVELTIES
Auto foolers with no report
Auto foolers with report
Bat snaps
Bobby traps
Chinese fun snaps
Cigarette loads
Fun snaps
Ghost & bat snaps
Ghost bomb snaps
Gravity pack-snaps

Magnum poppers
Party poppers (flame proof)
Trick bank matches

SPARKLERS
8 color sparklers
8 gold sparklers USA
8 gold sparklers
8 party sparklers
#10 color sparklers
#10 gold sparklers USA

#14 gold sparklers USA
#20 gold sparklers USA
#36 gold sparklers USA

Non-exempted fireworks 1.4G (UN0336) can be legally sold in Ohio by a licensed wholesaler or manufacturer. However, purchasers must sign a form stating the destination to which the fireworks will be taken, as they are required to be transported out of the State of Ohio. Ohio residents and out-of-state residents must transport the fireworks out of Ohio within 48 hours. These non-exempted 1.4G fireworks (UN0336) cannot be discharged in Ohio. Examples of non-exempted 1.4G (UN0336) fireworks are:

Non-exempted fireworks

Bottle rockets	Parachutes
Buzz-bombs	Pin wheels
Cones	Planes
Fancy florals	Repeaters
Firecrackers	Roman candles
Fountains	Shells
Ground items	Skyrockets
Helicopters	Tubes
Mines	Chasers
Missiles	Morning Glories

Assortments containing Non-exempted fireworks 1.4G (UN0336)

Revised 3/12

Outdoor

Fireworks

Display

Fireworks FAQ

Q. Who is required to have a fireworks exhibitor license?
A. Any person who wishes to be an exhibitor (commonly referred to as a "lead shooter") of indoor, outdoor, theatrical, or special effects fireworks in Ohio.

Q. How has the fireworks exhibitor licensing types changed?
A. The 2011 OFC revisions went into effect on November 1, 2011, which will affect the exhibitor types listed on a license.

Type I - A licensed exhibitor of outdoor/indoor fireworks / NFPA 1123 & 1126
Type II - A licensed exhibitor of indoor fireworks / NFPA 1126
Type III - A licensed exhibitor of flame effects / NFPA 160

Any exhibitor that has only a fireworks exhibitor license and did not take/pass the pyrotechnics exam will no longer be qualified as an Ohio licensed exhibitor. The license revocation process has begun for those individuals in this situation. Any fireworks only licensed exhibitor that submits a renewal application will be denied a license as they no longer meet the minimum qualifications. Those that did not take advantage of the opportunities provided to meet these new minimum criteria will be required to pass both a fireworks and pyrotechnics exam(s) to regain an Ohio Type 1 exhibitor's license.

Q. What are the minimum qualifications for a new fireworks exhibitor license?
A. Every applicant for a new fireworks exhibitor license shall:

1. Submit a properly completed application on a form prescribed by the State Fire Marshal along with the $50 fee.
2. Submit with the application one (1) of the following:
    - Written and signed documentation from an Ohio licensed fireworks exhibitor, manufacturer, or wholesaler attesting to the applicant's proficiency in the handling and discharging of fireworks in a manner that emphasizes the safety and security of the public, or
    - A copy of a valid license issued by another state authorizing the applicant to conduct all types of fireworks exhibitions and discharging any and all types of "1.3G" fireworks.
3. Provide evidence that you do not have any felony convictions.
4. Pass the Fireworks Exhibitor Licensing Exam with a score of 70% or higher.

The application can be copied from the forms section of this publication or downloaded from http://www.com.state.oh.us/fire/forms.aspx#FMTR.

Q. Do I have to retest for each renewal?
A. No. Retesting would only be required if you failed to have your renewal application and fees received by our office prior to expiration of your current license. To renew annually you will submit the renewal form, payment, evidence that you do not have any felony convictions, and proof of continuing education prior to the license expiration date. If your exhibitor license has expired, you must submit an application, pay the associated fees and retest the same as a new applicant.

Q. What are the continuing education requirements for exhibitors?

A. Exhibitors shall attend a continuing education program approved by the State Fire Marshal once every three years. The program shall consist of at least six hours of instruction. A licensed exhibitor or the exhibitor's designee who attends a required program shall, within one year after attending the program, and on an annual basis during the following two years, conduct in-service training for other employees of the licensee.

Q. If I'm a licensed fireworks exhibitor, do the people who help me set up an exhibition have to have fireworks exhibitor licenses?
A. No. Individuals involved only in the setup or clean up of the discharge site before or after the exhibition and do not handle 1.3G fireworks, are not required to be registered. Those individuals that will be within the discharge area once the fireworks are on site shall carry the proof of registration issued by the state fire marshal and make it available to any fire or law enforcement official upon request.

Q. Does an exhibitor need to register their employees?
A. Yes. The exhibitor shall annually register with the State Fire Marshal all employees who assist the licensed exhibitor in conducting fireworks exhibitions. At the time of registration, the exhibitor must provide written verification that the employee completed a minimum of three hours in-service education in the safe operation of a public display. The employee must be registered with the State Fire Marshal at least 14 days prior to assisting the licensed exhibitor in conducting a fireworks exhibition and no later than 7 days after the date hired. An employee, once registered with the state, may work for any Ohio licensed exhibitor. Only exhibitors, registered employees, and fire safety inspectors shall be permitted within the discharge perimeter of an exhibition (ORC 3743.56).

Q. How do I register a Fireworks Exhibitor Assistant?
A. The employee registration form is available on-line, in the back of this book, or can be obtained by calling (614) 752-7126. Complete the form and return it with payment and evidence that the applicant does not have any felony convictions. Payment can be made by credit card, check, or money order made payable to: The Treasurer of the State of Ohio. A $25.00 fee is required for each fireworks exhibitor assistant being registered. For any assistants registered the previous year, you may renew their certificate and pay on-line at http://www.com.state.oh.us/elicense.aspx by signing on your exhibitor renewal page.

Q. How can I find a person is licensed as an exhibitor or assistant?
A. A person can search listings of all individuals or companies licensed by the State Fire Marshal's office at the link provided below. Select *fireworks exhibitor or exhibitor assistant information* and choose a *county* to find those that are currently licensed in the area. https://www.comapps.ohio.gov/sfm/fire_apps/fmtr/LicenseLookup/.

Q. What is Quickmatch?
A. This is a black match that is encased in a loose-fitting paper or plastic sheath to make it burn rapidly. Quick match is used for aerial shells and for simultaneous ignition of a number of pyrotechnic devices, such as lances in a ground display piece.

Q. Where can a licensed exhibitor obtain fireworks for an exhibition?
A. Ohio licensed exhibitors may obtain fireworks to be used at a specifically permitted exhibition from either an Ohio licensed wholesaler or manufacturer of fireworks. Exhibitors may also obtain fireworks from an out-of-state shipper with a SFM issued permit that allows the shipper to ship fireworks into the state. See ORC 3743.54, 3743.55 and 3743.40 for more details.

Q. Can a licensed exhibitor acquire and use 1.4g fireworks?
A. Yes. A licensed exhibitor may acquire and use 1.4g product in an outdoor exhibition that is properly permitted. See ORC 3743.54, 3743.55.

Q. When does the working relationship between the exhibitor and the fire department begin and how can we make it better?
A. Communication is the key to a successful show. The exhibitor should make contact with the AHJ well in advance of the exhibition to find what their requirements are. Fireworks, pyrotechnic, and flame effect exhibitions must follow all NFPA and OFC standards, but those requirements are the minimum standard for a show. The jurisdiction(s) where an exhibition is being held may require additional measures to ensure that it is a safe & incident free performance.

Talking early and talking often can cut down or eliminate those little surprises or miscommunications that create problems. It also gives the exhibitor enough time to provide support documents and any other information that might be required.

Q. At what point would you cancel a show due to high winds? Is there a rule of thumb for wind speeds that are prohibitive for a safe show? What are the dangers of rain during set up operations?
A. Per NFPA 1123 section A.8.1.4.2, in considering when wind speed is excessive for the reasonably safe performance of a fireworks display, there are two primary considerations as follows:

(1) The potential for an increased risk of hazardous debris from the display falling into the spectator areas.
(2) The potential for an increased probability of fire that is made excessively difficult to control.

Covering the mortars with plastic will keep the shells dry in the event of rain. Securing the plastic tightly over the top of the guns will keep the wind from blowing the plastic off. When the plastic is taut across the top the shells, they can be shot with the plastic still on. Moisture damaged pyrotechnic materials should not be used.

NFPA 1123 section 9.4.4 When a serious electrostatic discharge hazard exists, such as during an electrical storm, all electrostatic discharge-sensitive operations shall be suspended, and personnel shall withdraw to a safe location.

NFPA 1123 section 8.1.4.2* If high winds, precipitation, or other adverse weather conditions prevail or begin such that a hazard exists in the opinion of the operator or the AHJ, the fireworks display shall be postponed or discontinued until weather conditions improve.

The AHJ will be the final judge as to what is acceptable.

Fireworks Definitions

Aerial Device (Display)
A fireworks device designed to be launched into the air for use in a firework display.

Aerial Salute
A salute that functions as an aerial shell.

Aerial Shell
A cartridge containing pyrotechnic composition, a burst charge, and an internal time fuse or module that is propelled into the air from a mortar and that is intended to burst at or near its highest point.

Artillery
Multiple reports.

Ash Can
Ash can is another name for a silver salute. True ash cans became illegal in 1966. Legal ash cans today contain only 50 milligrams of flash powder.

Assistant
A person who works under the supervision of the pyrotechnic operator.

Automatic Electrical Firing Unit
A panel or box that operates automatically to provide the source of electric current used to ignite electric matches.

Barrage
A rapidly fired sequence of aerial fireworks.

BATFE
Bureau of Alcohol, Tobacco, Firearms and Explosives. A federal agency which oversees and regulates the safe use and handling of fireworks.

Battery
A collection of fireworks devices, such as a group of mortars (finale battery) or a bundle of roman candles (candle battery), fused together in such a manner that they are fired within a short period of time.

Black Match
Used in the manufacture of fireworks, black match is a type of fuse that is made by saturating cotton string in black powder. Unconfined, black match burns at an approximate rate of one inch per second. Also known as quick match.

Black Powder
A low explosive consisting of a mixture of potassium or sodium nitrate, charcoal, and sulfur.

Bombette
A Bombette is an exploding star, usually ejected from a roman candle or fountain. Bombettes are limited to a maximum charge of 130 milligrams of flash powder in legal consumer fireworks.
Break. An individual burst from an aerial shell, generally producing either a visual effect (stars) or noise (salute).

Cake
A dense-packed collection of mine/shell tubes. It is a chain-fused firework that propels a series of aerial shells, comets, or mine effects into the air.

Chain Fusing
A series of two or more aerial shells fused to fire in sequence from a single ignition.

Comet
A single pellet of pyrotechnic composition that is ignited and simultaneously propelled into the air from a mortar or tube; a comet is self-consuming as it rises into the air and can be designed to split apart.

Consumer Fireworks
Small fireworks devices containing restricted amounts of pyrotechnic composition, designed primarily to produce visible or audible effects by combustion that comply with the construction, chemical composition, and labeling regulations of the U.S. Consumer Product Safety Commission (CPSC), as set forth in CPSC 16 CFR 1500 and 1507, 49 CFR 172, and APA Standard 87-1, *Standard for the Construction and Approval for Transportation of Fireworks, Novelties, and Theatrical Pyrotechnics*. (NFPA 1124 3.3.30.1 – 2006)

Discharge Site
The area immediately surrounding the fireworks mortars used for an outdoor fireworks display.

Display Fireworks
Large fireworks devices that are explosive materials intended for use in fireworks displays and designed to produce visible or audible effects by combustion, deflagration, or detonation, as set forth in CPSC 16 CFR 1500 and 1507, 49 CFR 172, and APA Standard 87-1, *Standard for the Construction and Approval for Transportation of Fireworks, Novelties, and Theatrical Pyrotechnics*. (NFPA 1124 3.3.30.2 – 2006)

Display Site
The immediate area where a fireworks display is conducted, including the discharge site, the fallout area, and the required separation distance from mortars to spectator viewing areas, but not spectator viewing areas or vehicle parking areas.

Dud
A shell (or any device) that leaves the mortar, but fails to function in the air coming back down unexploded.

Electrical Ignition
A technique used to ignite fireworks using a source of electric current.

Electrical Firing Unit
A device that provides and controls the electric current used to ignite fireworks during a display.

Electric Match
An electric device that contains a small amount of pyrotechnic material that ignites when current flows through it. When a sufficient electric current is passed through the wire circuit, the heat that is generated ignites the pyrotechnic composition, producing a small burst of flame. This flame can be used to ignite a fuse or a lift charge in a fireworks device.

Fallout Area
The designated area in which hazardous debris is intended to fall after a pyrotechnic device is Page 1 of Chapter 3 Definitions 3 fired.

Fireworks
Any composition or device for the purpose of producing a visible or an audible effect for entertainment purposes by combustion, deflagration, or detonation, that meets the definition of *Consumer Fireworks* or *Display Fireworks* as set forth in NFPA 1124**,** 2006 edition. (NFPA 1124 3.3.30 – 2006)

Fireworks Display
A presentation of fireworks for a public or private gathering.

Ground Display Piece
A pyrotechnic device that functions on the ground (as opposed to an aerial shell that functions in the air) including fountains, wheels, and "set pieces."

Ground Salute
A salute that functions from a stationary or secured position.

Handheld Electrical Firing Unit
A small, handheld unit with manually operated switches that control the flow of electric current to electric matches attached to fireworks devices.

Hazardous Debris
Any debris produced or expelled by the functioning of a pyrotechnic device that is capable of causing personal injury or unpredicted property damage.

Lance
A thin cardboard tube packed with color-producing pyrotechnic composition used to construct ground display pieces.

Lift Charge
The composition that propels (lifts) the pyrotechnic device into the air.

Loader
An assistant who loads or reloads aerial shells, comets, or mines into mortars.

Manual Electrical Firing Unit
A panel or box with manually operated switches that control the flow of electric current to electric matches attached to fireworks devices.

Manual Ignition
A technique used to ignite fireworks using a handheld ignition source such as a fusee or portfire.

Mine
A device containing multiple pyrotechnic effects that are simultaneously ignited and dispersed into the air from mortar or tube.

Misfire
A misfire occurs when fire has been presented to a device and the device failed to function entirely, not ever leaving the tube.

Mortar
A tube from which certain aerial devices are fired into the air.

Mortar Rack
A frame containing one or more mortars.

Mortar Trough
Aboveground structure filled with sand or similar material into which mortars are positioned.

Operator
The person with overall responsibility for the operation and safety of a fireworks display.

Portfire
A long tube containing slow-burning pyrotechnic composition that is sometimes used to ignite fireworks at outdoor fireworks displays.

Pyrotechnic Material (Pyrotechnic Special Effects Material)
A chemical mixture used in the entertainment industry to produce visible or audible effects by combustion, deflagration, or detonation.

Quick Match
A black match that is encased in a loose-fitting sheath.

Ready Box
A storage container for aerial devices for use during setup and display.

Ready Box Tender
An assistant who controls and dispenses the contents of ready boxes during a fireworks display.

Roman Candle
A chain-fused firework that propels a series of aerial shell, comet, or mine effects into the air from a single tube.

Safety Cap
A tube, closed at one end, that is placed over the end of the fuse until the intended ignition to protect it from damage and accidental ignition.

Salute
Fireworks designed to produce an explosive sound as their primary effect.

Shall
Indicates a mandatory requirement.

Shooter
A member of the fireworks display crew (either the operator or an assistant) who performs the actual ignition of the fireworks, either by manual or electrical means.

Sponsor

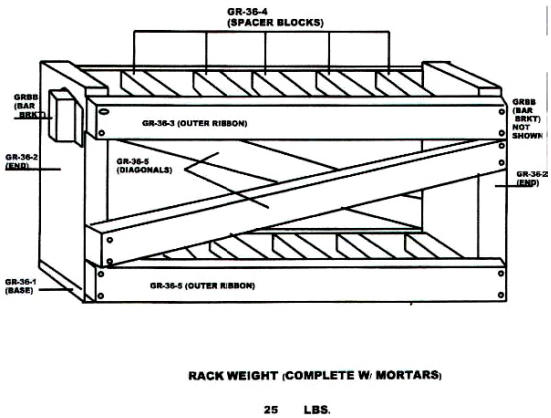
The organization (person, group, or government agency) that arranges with a duly authorized fireworks supplier for its services in presenting a fireworks display or in providing fireworks for use in a display.

Spotter
A member of the fireworks display crew (either the operator or an assistant) who observes the firing and bursting of aerial shells and other display fireworks for the purpose of detecting proper mortar angling, noting the occurrence of duds, and observing for other potentially hazardous situations.

The following photos and diagrams are to be used only as examples of how to stabilize mortars, mortar racks, candles, and cakes. Stability is verified by the licensed fireworks exhibitor and fire official immediately prior to the fireworks exhibition. Each item shall be individually addressed in an appropriate manner (apply pressure and determine it cannot fall over or move on the ground) to ensure its integrity and stability prior to providing affirmative documentation of such stability on the required inspection checklist.

Refer to NFPA 1123 (2006 edition) and Ohio Fire Code 1301:7-7-33 for specific requirements.

Racks & Mortars



Q. What is a fireworks rack?
A. A fireworks rack contains a given number of aerial mortar tubes (aka "guns") of a given size. Aboveground racks should be constructed to withstand a catastrophic malfunction in a mortar. Wooden racks should have sides and bottom plates of at least 2 in. (5 cm) nominal thickness. The racks should be boxed on both sides at the top and bottom by 1 in. 6 in. (2.5 cm 15 cm) nominal thickness boards or in. (1.3 cm) thick plywood. Blocks of 2 in. (5 cm) nominal thickness should be attached to the horizontal boards between each mortar of inside diameter greater than 3 in. (76 mm). Boards should be fastened by nails, screws, or other fasteners that penetrate a minimum of 1 in. (2.5 cm) into the member to which a board is attached.

Q. What is a mortar?
A. A mortar is the tube that is secured in the rack and holds the shells. Most display fireworks are shot from mortars. Mortars shall be of sufficient length to allow aerial shells to be propelled to the height at which the aerial shells were designed to burst. Paper, HDPE, and fiberglass mortars shall be permitted to be used. Cast iron, stove pipe, corrugated culvert, clay, bamboo, and wood shall not be used to make mortars. Metal mortars shall be permitted to be either seamed or seamless. Where seamed mortars are used, mortars shall be placed so that all seams face either right or left when the line of mortars are viewed. NFPA 1123 provides minimum mortar requirements. Mortars shall be positioned and spaced so that shells are propelled over the fallout area and to afford maximum protection to the shooter, loader, and audience.

Q. How do you secure the mortar racks for the show?

A. Racks should be secured to prevent tipping over by attaching stakes or spikes driven into the ground, banding, using A-frames, or other equivalent means. Aboveground wood frame mortar racks with lightweight mortar materials such as paper, HDPE, or fiberglass generally will not withstand a catastrophic aerial shell malfunction in a mortar (NFPA 1123 section A4.6.1)

There are a variety of techniques depending on what type of surface you are shooting from. Sandbags, trenches, boxes, screens, or barriers are additional methods used to secure aerial fireworks devices. **The AHJ will be the final judge as to what is acceptable. The fire safety inspector must be confident that the racks are set up and secured in a way that will allow for an incident free exhibition.** The important thing is that the racks & mortars are secured in an upright and safe position and stay secure throughout the show. As a shell lifts from the rack it does so with enough intensity to move or damage the tubes and whatever shells are left in the rack. If a rack is not safely secured it may fall over and the remaining shells will discharge into the crowd. If the rack is too unyielding, the force of a shell firing may damage the rack and/or any shells yet to be fired. This creates a situation where the remaining shells are being fired from unstable or damaged tubes and/or racks.

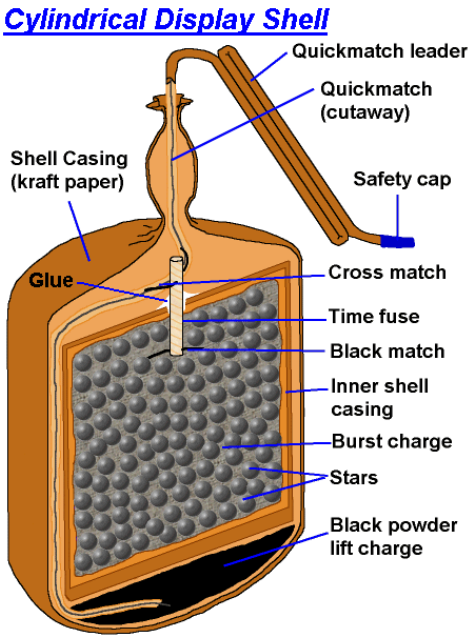
Mortars buried within drums or troughs are not considered to be buried in the ground. If troughs and drums are used, they shall be filled with sand or soft dirt and, in all cases, shall be free of stones or other potentially dangerous debris. Troughs shall be reinforced or braced in a minimum of two places on the sides at intervals not greater than every 4 ft (1.2 m). Mortars shall be buried to a depth of at least two-thirds of their length, either in the ground or in aboveground troughs or drums.

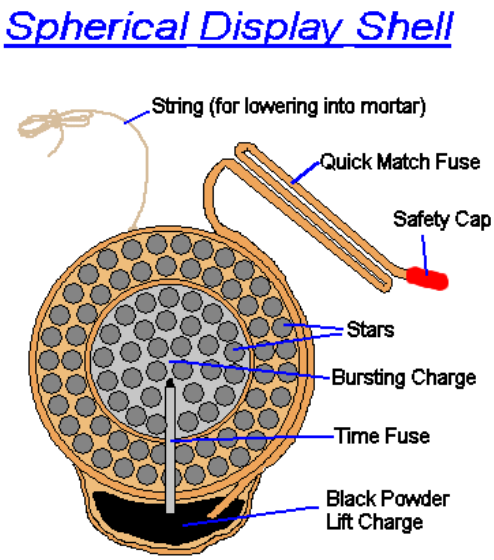
Q. Why are some racks at an angle?
A. Aerial shells, comets and mines, and Roman candles and cakes shall be permitted to be angled for a display to allow for wind and to carry their effects away from the main spectator viewing area. The mortars or tubes shall be angled so that any dud shells or components will drop in the fallout area.

Shells

Q. What is a Firework Shell?
A. A cylindrical or spherical cartridge containing lift charge, burst charge, and effect composition. Shells are most commonly 2 inches (50 mm) to 6 inches (152 mm) in diameter, and are fired from metal, high-density polyethylene (HDPE), fiberglass, or heavy cardboard tubes. Upon firing, the lift charge is consumed and the cartridge is expelled into the air.

A pyrotechnic effect is produced near the apex of flight. Aerial shells are typically ignited by means of a quick match fuse or electric match. The lift charge is a pyrotechnic composition used to propel the mine or shell device into the air. A lift charge is limited to black powder (potassium nitrate, sulfur, and charcoal) or similar pyrotechnic composition without metallic fuel. Aerial shells exceeding 10 inches (250 mm) in diameter or containing a burst charge that has metallic fuel may be approved under this NFPA 1123 as Fireworks, UN0333, 1.1G. Note: All aerial shells that are not contained in a launch tube (D.3.1.2.5) or sold as part of a reloadable shell kit (D.3.1.2.6) may only be approved under the provisions of NFPA 1123 as Fireworks, UN0335, 1.3G.





Each shell shall be identified only in terms of the inside diameter (not the circumference) of the mortar in which it can be safely used [e.g., 3 in. (76 mm) shells are only for use in 3 in. (76 mm) mortars]. Each shell shall be constructed so that the difference between the inside diameter of the mortar in which it can be safely used and the outside diameter of the shell is no less than 1/8 in. (3.2 mm) and not more than ¼ in. (6.4 mm) for shells not exceeding 3 in. (76 mm) or ½ in. (12.7 mm) for shells larger than 3 in. (76 mm). Each shell needs to be marked with the type of shell, the diameter measurement, and the name of the manufacturer or distributor.

Cakes and Candles

Q. What is a Fireworks Cake?
A. The term cake refers to a dense-packed collection of mine/shell tubes in which multiple effects are chained together to fire back to back. It propels a series of aerial shells, comets, or mine effects into the air from collectively attached tubes. Total chemical composition including lift charges of any multiple-tube devices may not exceed 200 g.

Q. Why are some cakes covered with foil?
A. Weather-resistant coverings shall be placed over the mouth of mortars wherever there is imminent danger of water collecting in the mortars. Foil & black plastic are commonly used for this purpose. Foil may also be used to prevent premature ignition from any sparks produced by other devices in the show, particularly nearby cakes.

Q. Are there any special considerations for the larger cakes?
A. A cake fires one after another from start to finish with no way to stop it. Therefore, if a tube explodes, the other surrounding tubes could be knocked out of place pointing in an undesirable direction. To prevent this, you can place large cakes in the wooden boxes to keep all tubes pointed strait up even in the event of a malfunction. Another option is to bury ¾ of the cake. All bundles, box items, cakes, candle placements, and mortar racks shall be inherently stable or be properly secured and braced to prevent repositioning. It is not acceptable to create inherent stability of mortar racks only by connection to other mortar racks. The stability of all mortars, bundles, box items, cakes, candle placements and mortar racks shall be verified by the licensed fireworks exhibitor and fire official immediately prior to the fireworks exhibition. Each such item shall be individually addressed in an appropriate manner to ensure its integrity and stability prior to providing affirmative documentation of such stability on the required inspection checklist. **The AHJ will be the final judge as to what is acceptable. The fire safety inspector must be confident that all devices are set up and secured in a way that will allow for an incident free exhibition.**

Q. What are the required distances?
A. For aerial shells, comets, mines, Roman candles, and cakes that are discharged vertically, the minimum required spectator separation distance shall be the same as the minimum required radius specified in chart 5.1.3 in the 2006 Edition of NFPA 1123. Where there is doubt concerning the strength of racks holding chain-fused mortars, the separation distances from those racks to spectators shall be twice those listed in Table 5.1.3.1 for the largest mortar in the sequence. Keep in mid that the distances in this chart are the minimum requirements. The AHJ can increase the distance if so desired.

Note: >12 in. (>305 mm) requires the approval of the AHJ.

Table 5.1.3.1 Distances for Outdoor Aerial Shell Display Sites: Minimum Separation Distances from Mortars to Spectators for Land or Water Displays

Mortar Size[a]		Minimum Secured Diameter of Site[b]		Vertical Mortars[c]		Angled Mortars[d] 1/3 Offset		Mortars to Special Hazards[e]	
in.	mm	ft	m	ft	m	ft	m	ft	m
≤1	25	150	46	75	23	75	23	150	46
1.5	38	210	64	105	32	75	23	210	64
2	50	280	85	140	43	95	29	280	85
2.5	63	350	107	175	54	115	35	350	107
3	76	420	128	210	64	140	43	420	128
4	102	560	171	280	85	190	58	560	171
5	127	700	213	350	107	230	70	700	213
6	152	840	256	420	128	280	85	840	256
7	178	980	299	490	149	320	98	980	299
8	203	1120	341	560	171	370	113	1120	341
10	254	1400	427	700	213	460	140	1400	427
12	305	1680	512	840	256	560	171	1680	512

a See 4.1.1.
b See 5.1.3.
c See 5.2.1.3.
d See 5.2.1.3. Note that for angled mortars, the minimum secured diameter of the display site does not change. Only the location of the mortars within the secured area changes when the mortars are angled.
e See 5.1.4. Note that this is only the distance to the special hazards. The minimum secured diameter of the display site does not change.

Q. What is a candle?
A. Candles come in different sizes and effects. All are constructed of heavy paper or a cardboard tube containing not more than 20 g of chemical composition.

Q. How do we setup a fireworks candle?
A. All chain-fused aerial fireworks devices, including those not in mortar racks such as roman candle batteries and multi-tube aerial items, shall be positioned using stakes, racks, sandbags, earth, or equivalent means to prevent tip over or hazardous movement during operation.

Hand Firing or Electronic Firing

As with varying techniques to securing a rack, the exhibitor/shooter may have a personal preference for hand firing and electronic firing. **Although the AHJ will be the final judge as to what is acceptable.**

Typically, for electrical ignition, electric matches are attached to or inserted into fireworks devices prior to the display and are connected to wires leading back to an electrical firing unit. During the display, the operator or an assistant controls the ignition of the fireworks using the electrical firing unit.

Electrical firing/ignition is often used for larger displays, for displays fired on frequent occasions at a fixed location, and for other displays where precise control over the timing of the fireworks is desired for aesthetic reasons. The operator and all assistants shall be positioned a minimum of 75 ft (23 m) from any mortar or shall be positioned behind a protective barrier approved by the AHJ during an exhibition that is using an electrical firing system. The electrical firing unit shall be set up and located so that there is a clear line of sight to the mortars and to other parts of the discharge site, unless a spotter is in direct communication with the shooter controlling the electrical firing unit. Only those persons necessary for the firing of the display shall be permitted in the vicinity of the electrical firing unit during the display.

Where more than one shooter is to hand ignite the aerial shells for an outdoor fireworks display, the line of mortars should be separated in some manner, and only one shooter should be lighting shells in each area.

Where both manual firing and electrical ignition are used during a display, the mortars to be used for manual firing shall be separated from the mortars to be used for electrical ignition by a distance of at least 25 ft (7.7 m)

Pyrotechnics Before a Proximate Audience

Pyrotechnics FAQ

Q: What are 1.4S (special effects) fireworks
A.1.4S (special effects) fireworks (or 1.4g special) are pyrotechnic devices for professional use in the performing arts in conjunction with theatrical, musical or other productions. 1.4S fireworks are similar to "consumer fireworks" in chemical composition and construction but are not intended for consumer use. Such fireworks shall be classified as "Article Pyrotechnic 1.4S" by the United States Department of transportation and marked and labeled in conformance with Title 49 of the Code of Federal Regulations (including 1.4G (UN 0431 as classified by United States Department of Transportation regulations) and 1.4S (UN 0432 as classified United States Department of Transportation regulations). 1.4S fireworks may be packed or designed so that any hazardous effects arising from a malfunction do not significantly hinder or prohibit firefighting or other emergency response efforts in the immediate vicinity of the package.

Q. What are close proximity effects?
A. Close Proximity fireworks refers to a type of pyrotechnics that can be utilized within a relatively close range of spectators. They are designed to project only to a limited height, typically 75-200 feet. These types of effects, when utilized in a properly designed display, can have as much impact as the much larger standard aerial fireworks since they are safe to place much closer to the audience. Refer to NFPA 1126 section 8.4 for required separation distances.

Q. What's different about staging indoor effects*?*
A. Several aspects must be taken into immediate consideration right after you decide what you want to accomplish, and what your motivation is for doing the display. The first is the size of the room: is there adequate ceiling height, ventilation, and distance from the effect to the audience? Are the drapes and set pieces flame proofed? Will the smoke overpower or block the audience's vision for the balance of the show? Most effects require a minimum safety distance of 15 feet from effect to audience. (Refer to NFPA 1126 section 8.4 for required separation distances)

Q. Why are pyrotechnic displays regulated?
A. Using pyrotechnics (fireworks) anywhere is dangerous especially in close proximity to the audience. Improper use, or storage, creates risk to individuals and property. Inspectors from the AHJ establish appropriate safety measures that include crowd management, security, fire protection clearance zones, and emergency response procedures.

Q. When does the working relationship between the exhibitor and the fire department begin and how can we make it better?
A. Communication is the key to a successful show. The exhibitor should make contact with the AHJ well in advance of the exhibition to find what their requirements are. Fireworks, pyrotechnic, and flame effect exhibitions must follow all NFPA and OFC standards, but those requirements are the minimum standard for a show. The jurisdiction(s) where an exhibition is being held may require additional measures to ensure that it is a safe & incident free performance. Talking early and talking often can cut down or eliminate those little surprises or miscommunications that create problems. It also gives the exhibitor enough time to provide support documents and any other information that might be required.

Q. What laws and rules apply to the use of 1.4S fireworks before an audience either indoors (like a theatrical event) or outdoors?

A. Similar to other exhibitions of fireworks, the use of 1.4S fireworks before an audience triggers the following requirements:

- Use of an exhibitor licensed by the State to conduct pyrotechnics exhibition;
- The licensed exhibitor must obtain a permit from the fire official and law enforcement officials with jurisdiction over the exhibition;
- The exhibition must be conducted in accordance with the safety standards outlined in the Ohio Revised Code, Ohio Fire Code, and the National Fire Protection Association (NFPA) standards incorporated into the Ohio Fire Code, particularly NFPA 1126 (2006 edition), the Standard for Use of Pyrotechnics Before a Proximate Audience.

Tips for Exhibitors.

1.4S and 1.4G (special) fireworks used are not consumer fireworks under Ohio law, so they must be manufactured, labeled, and sold in conformance with the regulations of United States Consumer Product Safety Commission found in Title 16 of the Code Federal Regulations. Carefully look at the labels of all of fireworks to make sure that you are using correct types of fireworks at your exhibitions.

Ohio Fire Code 1301:7-7-33(H) section 3308 provides the requirements for fireworks and pyrotechnics exhibition. Section 3308.7 provides the following requirements when applying for a permit:

(a) **3308.7.1** When an Ohio licensed exhibitor applies for the permit required by paragraph (H)(1)(3308.1) of this rule, the licensed exhibitor shall submit all of the following information to the local officials having jurisdiction over the exhibition. Such information shall include but not be limited to:

(i) **3308.7.1.1** The name of the organization sponsoring the fireworks exhibition together with the names of persons actually in charge of the fireworks exhibition.

(ii) **3308.7.1.2** The date and time of day when the fireworks exhibition is to be held.

(iii) **3308.7.1.3** The exact location planned for the fireworks exhibition.

(iv) **3308.7.1.4** The name and license number of the fireworks exhibitor who is to supervise the discharge of fireworks and of all personnel assisting within the discharge perimeter.

(v) **3308.7.1.5** The class of fireworks to be discharged with the number of set pieces and shells (specify single- or multiple-break), including experimental rockets or missiles.

(a) **3308.7.1.5.1** For the indoor exhibition of fireworks, the requirements for pyrotechnic product information in accordance with Chapter 7 of NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.

(vi) **3308.7.1.6** The manner and place of storage of all fireworks prior to and during the fireworks exhibition for all fireworks storage shall be in accordance with paragraph (J)(1)(3310.1) of this rule.

(vii) **3308.7.1.7** A diagram of the premises on which the fireworks exhibition is to be held, showing the point at which the fireworks are to be discharged, the location of all buildings, highways, railroads, or other inhabited structures within one thousand

feet of the discharge and potential landing site. The diagram shall also show the line barriers behind which the audience will be restrained.

(a) **3308.7.1.7.1** For the indoor exhibition of fireworks, the diagram must include:

(i) The interior of the structure to be used for the exhibition and the layout of all devices to be used at the exhibition.

(ii) A description of the direction the devices shall be fired and the fallout radius for each device.

(iii) The lines behind which the audience shall be restrained.

(b) **3308.7.1.7.2** For the indoor exhibition of fireworks, certifications that the set, scenery and rigging materials are treated with appropriate flame retardant.

(viii) **3308.7.1.8** Proof that general liability insurance or indemnity bond issued by a company licensed to provide such coverages in the state of Ohio, for an amount no less than one million dollars or as otherwise required in a higher amount by the authority having jurisdiction, is in force for the applicant and includes acts of all employees.

(ix) **3308.7.1.9** A copy of each exhibitor's license and proof of assistant's registration for all individuals proposed to operate within the discharge perimeter.

(x) **3308.7.1.10** The name and license number of the fireworks manufacturer, wholesaler or out-of-state shipper who supplied all items in the fireworks exhibition.

(b) **3308.7.2** The licensed exhibitor reflected on the fireworks exhibition permit at the time of the fireworks exhibition shall be responsible for compliance with the provisions under which the fireworks exhibition permit was granted.

(c) **3308.7.3** A copy of the issued permit and the completed inspection checklist shall be sent to the state fire marshal by the fire official no later than five days after the date of the fireworks exhibition. In the event of any incident resulting in an investigation or other inquiry by the state fire marshal or other authority having jurisdiction, the completed permit and the completed inspection checklist shall be made immediately available to the state fire marshal or other authority having jurisdiction upon request.

Pyrotechnics Definitions

Aerial Shell
A cartridge containing pyrotechnic composition, a burst charge, and an internal time fuse or module that is propelled into the air from a mortar and that is intended to burst at or near its highest point.

Airburst
A pyrotechnic device that is suspended in the air to simulate outdoor aerial fireworks shells without producing hazardous debris.

Assistant
A person who works under the supervision of the pyrotechnic operator.

Authority Having Jurisdiction (AHJ)
An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

Binary Materials
See “Binary System”.

Binary System
A two-component pyrotechnic system where the pyrotechnic material is broken down into two separate containers. One is the oxidizer and one is the fuel. The ingredients cannot burn or explode until they are mixed together. This makes binaries safer to store and handle. Also known as binary explosive or binary materials.

Black Match
A fuse made from thread impregnated with black powder and used for igniting pyrotechnic devices.

Black Powder
A low explosive consisting of an intimate mixture of potassium or sodium nitrate, charcoal, and sulfur.

Booby Trap
A small tube that has a string protruding from both ends that has a friction-sensitive composition and that is ignited by pulling the ends of the string.

Cigarette Load
A small wooden peg that is coated with a small quantity of explosive composition and that is ignited in a cigarette.

Combustible
Capable of undergoing combustion.

Comet
A single pellet of pyrotechnic composition that is ignited and simultaneously propelled into the air from a mortar or tube; a comet is self-consuming as it rises into the air and can be designed to split apart.

Concussion Effect
A pyrotechnic effect that produces a loud noise and a violent jarring shock for dramatic effect.

Concussion Mortar
A device specifically designed and constructed, when loaded with pyrotechnic material, to produce a concussion effect.

Electric Match
A device containing a small amount of pyrotechnic material that ignites when a specified electric current flows through the device and initiates pyrotechnics.

Electrical Firing System
Electrical equipment that provides and/or controls the ignition of pyrotechnics.

Fallout Area
The designated area in which hazardous debris is intended to fall after a pyrotechnic device is fired.

Fallout Radius
A line that defines the fallout area of a pyrotechnic device.

Flammable
A combustible that is capable of easily being ignited and rapidly consumed by fire.

Flare
A pyrotechnic device designed to produce a single source of intense light for a defined period of time.

Flash Pot
A device used with flashpowder that produces a flash of light and directs the flash.

Flashpowder
A specific pyrotechnic material in powder form composed of fuel(s) and oxidizer(s) that upon ignition will produce a flash of light, sparkles, an audible report, or a combination of these effects.

Flitter Starburst
The Flitter Starburst is a Starburst which produces a flash of light and a burst of flitter effect stars in all directions to a diameter of 18 to 22ft.

Gerb
A cylindrical preload pyrotechnic device, intended to produce a controlled spray of sparks with a reproducible and predictable duration, height, and diameter.

Hazardous Debris
Any debris, produced or expelled by the functioning of a pyrotechnic device, that is capable of causing personal injury or unpredicted property damage.

Holder
Any device used to hold a pyrotechnic device other than a mortar.

Igniter
An electrical, chemical, or mechanical device used to fire pyrotechnics.

Integral Mortar
A preloaded mortar containing pyrotechnic materials and intended for a single firing only.

Isolated Power Supply
An ungrounded power supply that provides electricity, in which both output wires are isolated from ground.

Labeled
Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Lift Charge
The composition in a pyrotechnic device that propels (lifts) the effect into the air when ignited

Listed
Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

Line Rocket
A pyrotechnic device guided along a wire or cable.

Magazine
A building or structure, other than an explosives manufacturing building, approved for the storage of explosive materials.

Mine
A device containing multiple pyrotechnic effects that are simultaneously ignited and dispersed into the air from a mortar or tube.

Mortar
A device used to direct and control the effect of the pyrotechnic material.

Oxidizer
Any material that readily yields oxygen or other oxidizing gas, or that readily reacts to promote or initiate combustion of combustible materials.

Performance
The enactment of a musical, dramatic, operatic, or other entertainment production.

Performer
Any person active in a performance during which pyrotechnics are used and who is not part of the audience or support personnel.

Permittee
The person or persons who are responsible for obtaining the required permits for a production that includes the use of pyrotechnics.

Preload
A pyrotechnic device supplied by the manufacturer in a ready-to-use condition.

Proximate Audience
An audience closer to pyrotechnic devices than permitted by NFPA 1123, Code for Fireworks Display.

Pyrotechnic Composition
A chemical mixture which upon burning and without explosion, produces a visible brilliant display, bright lights, or sounds.

Pyrotechnic Device
Any device containing pyrotechnic materials and capable of producing a special effect as defined in this standard.

Pyrotechnics Exhibition
Includes any indoor and/or outdoor fireworks displays conducted in accordance with the provisions of Chapter 3743. of the Revised Code, or any variance issued thereunder, this rule and NFPA 1126 listed in rule 1301:7-7-47 of the Administrative Code.

Pyrotechnic Exhibitor
A licensed exhibitor who is only authorized for pyrotechnics before a proximate audience in accordance with chapter 3743 of the Revised Code, this rule and NFPA 1126 listed in rule 1301:7-7-47 of the Administrative Code.

Pyrotechnic Material (Pyrotechnic Special Effects Material)
A chemical mixture used in the entertainment industry to produce visible or audible effects by combustion, deflagration, or detonation.

Pyrotechnic Operator
The person who has overall responsibility for the operation and safety of a pyrotechnic display.

Pyrotechnic Special Effect
A special effect created through the use of pyrotechnic materials and devices. (See also, Special Effect.)

Pyrotechnic Special Effect material
A chemical mixture used in the entertainment industry, to produce visible or audible effects by combustion, deflagration or detonation. Such a chemical mixture predominantly consists of solids capable of producing a controlled, self-sustaining and self-contained exothermic chemical reaction that results in heat, gas, sound, light or a combination of these effects. The chemical reaction functions without external oxygen.

Pyrotechnics
Controlled exothermic chemical reactions that are timed to create the effects of heat, gas, sound, dispersion of aerosols, emission of visible electromagnetic radiation, or a combination of these effects to provide the maximum effect from the least volume.

Saxon
A pyrotechnic device consisting of a tube that rotates around a pivot point to produce a circular shower of sparks.

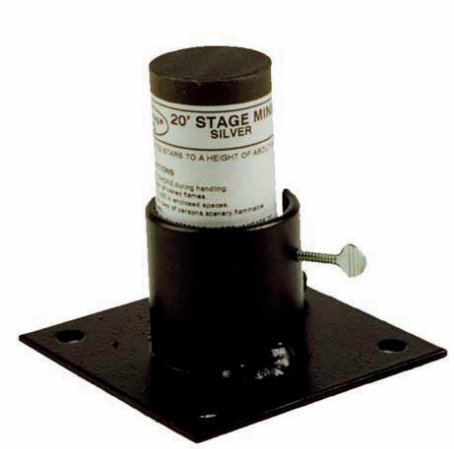
Special Effect
A visual or audible effect used for entertainment purposes, often produced to create an illusion.

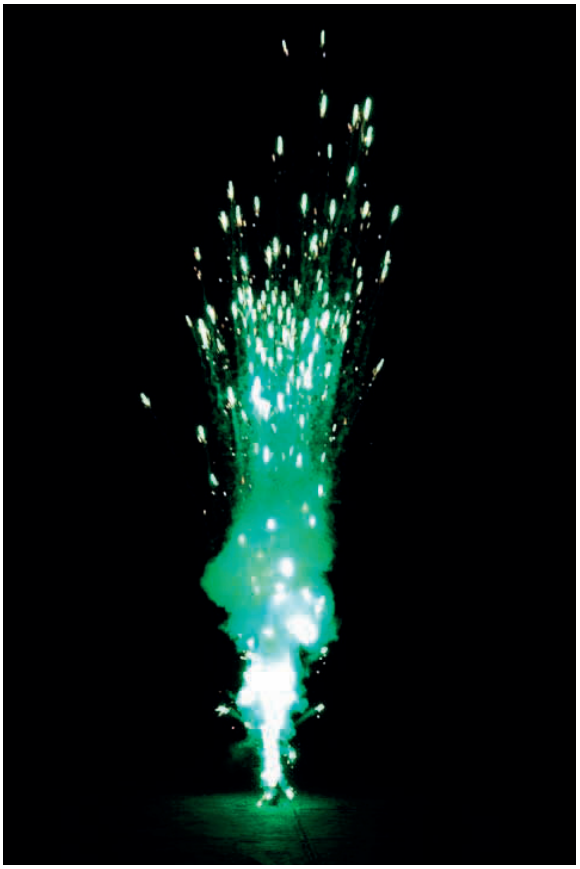
UN/DOTn Class 1 Explosives
The former classification system used by DOTn included the terms “high” and “low” explosives as defined herein. The following terms further define explosives under the current system applied by DOTn for all explosive materials defined as hazard Class 1 materials. Compatibility group letters are used in concert with the Division to specify further limitations on each division noted (i.e. the letter G identifies the material as a pyrotechnic substance or article containing a pyrotechnic substance and similar materials).

Waterfall, Falls, Park Curtain
An effect of a cascade of sparks usually produced by multiple devices fired simultaneously.

Wheel
A pyrotechnic device that rotates on a central axis consisting of multiple gerbs or rockets attached to a framework.

Mines



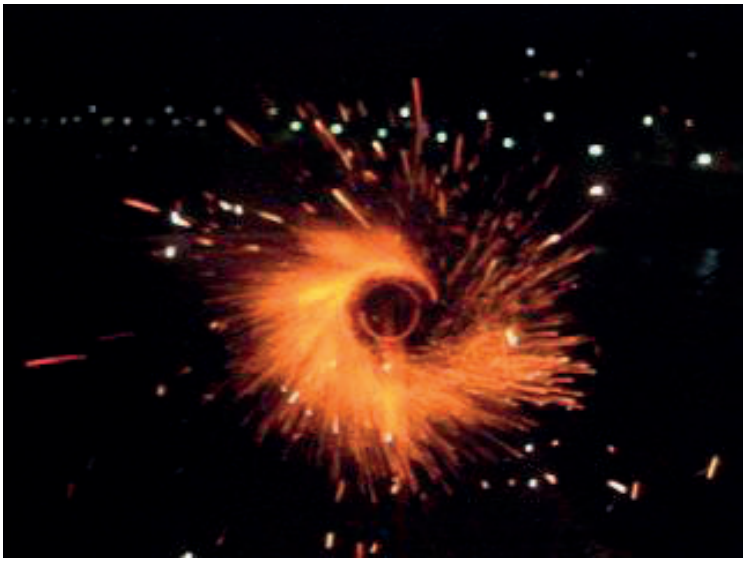


Airburst

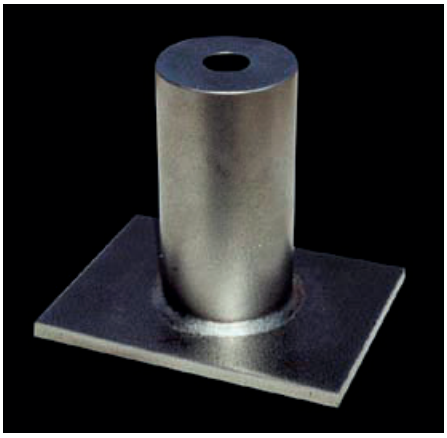
Comet

Gerb

Saxons



Concussions
(concussion pots & microdets)



Flame Effects Before An Audience

Flame Effects FAQ

Q: What is a flame effect?
A. It is anything that causes an open flame. NFPA 160 (2006 edition) defines a flame effect as the combustion of flammable solids, liquids, or gases to produce thermal, physical, visual, or audible phenomena before an audience. It also lists any type of open flame that is exempt and does not require a licensed operator.

Q. Can I get a flame effect exhibitor's license in Ohio?
A. Yes, upon proper application to the Division of State Fire Marshal (DSFM), including:·

- Written documentation demonstrating competency by experience or training in the operation of flame effects.
- Evidence that you do not have any felony convictions in this state or any other state.

The applicant will be scheduled for an examination once a completed application and $50 fee are submitted. It is a closed book examination and you must attain a minimum grade of seventy percent (70%) to pass and be issued a license. The examination is prepared from the Ohio Revised Code (ORC) section 3743, Ohio Administrative Code (OAC) section 1301:7-7-33, and the referenced editions of the National Fire Protection Association (NFPA) standard 160 (2006 edition).

The application can be downloaded from the following website: www.com.ohio.gov or copied from the forms section of this publication.

To obtain copies of the NFPA standards, call (800) 344-3555.

Q. How do I know if I need a flame effect exhibitor license?
A. NFPA 160 appendix A.3.3.19 provides examples of flame effect classifications. (chart on page 51) Group I describes the smallest flame effect as "hand-held burning torches, cigarette lighters, candles, matches, and lighting paper in an ashtray." If there is an open flame and there is an audience, it's covered by NFPA 160 and you will need to be licensed as a flame effect exhibitor. NFPA 160 section 1.3.3 lists any type of open flame that is exempt and does not require a licensed operator. When in doubt, talk to your local fire official.

Q. What equipment is used for flame effects?
A. For larger effects, the equipment is generally composed of a gas accumulator with a connection for an LPG cylinder for filling an outlet valve or valves to supply the burner heads that provide the flame. There is a control system and flame detectors that are designed to ensure that gas is not released from the accumulator to the burner heads unless there is either a pilot flame or ignition spark present. The burner valve setting controls the size of the flame produced. The unit is operated remotely from a control panel that can be situated out of sight of the audience. Some units have a sufficiently large accumulator to power the effects for an entire performance; others require refilling from a propane cylinder during the performance.

Operators should be trained in the use of the specific equipment preferably by the manufacturer/designer of the equipment.

Q. When does the working relationship between the exhibitor and the fire department begin and how can we make it better?
A. Communication is the key to a successful show. The exhibitor should make contact with the AHJ well in advance of the exhibition to find what their requirements are. Fireworks,

pyrotechnic, and flame effect exhibitions must follow all NFPA and OFC standards, but those requirements are the minimum standard for a show. The jurisdiction(s) where an exhibition is being held may require additional measures to ensure that it is a safe & incident free performance. Talking early and talking often can cut down or eliminate those little surprises or miscommunications that create problems. It also gives the exhibitor enough time to provide support documents and any other information that might be required.

Q. Why is the use of flame effects regulated?
A. NFPA 160, ORC, & OAC regulatory requirements were implemented to provide protection for the audience, support personnel, performers, the operator, assistants, and property where flame effects are used. These minimum requirements are intended to provide increased safety standards for the safe operation of flame effects.

Q. How can I find an Ohio licensed flame effect exhibitor?
A. A person can search listings of all individuals or companies licensed by the Division of State Fire Marshal's office at the link provided below. Select *flame effect exhibitor* and choose a *county* to find those that are currently licensed in the area.

https://www.comapps.ohio.gov/sfm/fire_apps/fmtr/LicenseLookup/

Q. Do I need a permit for a flame effect performance?
A. The Authority Having Jurisdiction (AHJ) should be consulted well in advance to discuss the details. If it is determined that the performance is classified as a flame effect, then a permit will be required. Ohio Administrative Code (OAC) 1301:7-7-33(K)(2) specifies:

(2) **3311.2 Permit.** A permit shall be obtained from the local fire code official of the jurisdiction for the use of indoor and outdoor flame effects as set forth in paragraph (K)(1)(3311.1) of this rule at least five days in advance of the production, exhibition, demonstration, or simulation using the flame effects. Failure to obtain a permit prior to five days in advance of the production or non-compliance with the requirements of this rule and NFPA 160 as listed in rule 1301:7-7-47 of the Administrative Code may, in the discretion of the local fire code official, result in denial or revocation of the permit.

Before any flame effects exhibition permit issued under this rule is considered to be a valid permit to allow the licensed flame effects exhibitor to conduct a flame effects exhibition, the permit, upon approval, must be signed and dated by the local fire code official having jurisdiction. As required by the local fire code official to confirm compliance with this paragraph, receipt of the permit and/or any conditions associated thereto, the flame effects exhibitor shall sign and date the permit application, the permit and/or any other required documentation.

When a permit is required by this rule, a local fire code official shall be present during the production, exhibition, demonstration, or simulation using flame effects.

Exception: When issuing a permit for a group I or group II flame effects production, exhibition, demonstration, or simulation using flame effects, the local fire code official may determine that a local fire code official need not be present during such an exhibition.

If a permit is required by this rule, the permit shall identify the local fire code official who will be present before, during, and after the flame effects exhibition.

If any portion of the fire protection or life safety systems of a structure are interrupted during the operation of flame effects, a local fire code official must grant a prior approval of and be present during such interruptions.

Any performance adding flame effects different from the performance described in the permittee's plan shall require approval by the local fire code official having jurisdiction.

(3) **3311.3 Permit form.** The application form for exhibition permit as prescribed by the state fire marshal shall be legibly and fully completed by the licensed flame effects exhibitor to clearly indicate the circumstances and class of the flame effects exhibition the flame effects exhibitor wishes to conduct.

(4) **3311.4 Flame effects use plan.** Before the performance of any production, the permit applicant shall submit a plan for the use of flame effects to the local fire code official. The plan shall be made in writing in such form as is acceptable to the local fire code official and shall demonstrate compliance with this rule and NFPA 160 listed in rule 1301:7-7-47 of the Administrative Code. The plan shall include but is not limited to the following:

(a) The name of the person, group, or organization sponsoring the production;

(b) The date and time of day of the production;

(c) The exact location of the production;

(d) The name of the flame effects exhibitor and proof of valid flame effects exhibitor license issued by the state fire marshal;

(e) The number, names, and ages of all assistants that will be present;

(f) The qualifications and experience of the flame effects exhibitor;

(g) The flame effects classification and design criteria in accordance with NFPA 160 listed in rule 1301:7-7-47 of the Administrative Code;

(h) A diagram of the site indicating the location of all flame effects devices, the areas effected by each device, location of the audience and separation distances, means of egress, and information on all fuels and ventilation for each effect;

(i) A narrative description of the flame effects, controls, and control sequences of all devices, and emergency response procedures;

(j) If applicable, a valid Material Safety Data Sheet (MSDS) for each fuel utilized;

(k) Documentation that the set, scenery, and rigging materials are treated with appropriate flame retardant.

After a permit has been granted, the permittee shall keep the plan available at the site for safety inspectors or other designated agents of each authority having jurisdiction.

(5) **3311.5 Fee.** When the legislative authority of the political subdivision has prescribed a fee for the issuance of a permit for a flame effects exhibition, the local fire code official shall not issue such permit until the flame effects exhibitor pays the requisite fees as required by the local legislative enactment setting forth such fee.

(6) **3311.6 Inspection of site.** Prior to issuance, the local fire code official having jurisdiction shall inspect the premises where the flame effects exhibition is to take place and determine whether the exhibition, demonstration, or simulation using flame effects is in compliance with this rule, Chapter 3743.of the Revised Code, and NFPA 160 (Annex C, Inspection Guidelines) listed in rule 1301:7-7-47 of the Administrative Code.

(7) **3311.7 Inspection checklist.** At the time of the required site inspection, the local fire code official having jurisdiction shall complete the required detailed inspection checklist as prescribed by the state fire marshal. No production, exhibition, demonstration, or simulation using flame effects shall occur in this state until the licensed flame effects exhibitor possesses a copy of the appropriate checklist signed by the local fire code official.

(8) **3311.8 Requirements to exhibit flame effects.** No person shall engage in the production, exhibition, demonstration, or simulation using flame effects unless the person obtains a permit in accordance with this rule. No permit for a flame effects exhibition shall be granted unless the applicant is in possession of a valid flame effects exhibitor's license in accordance with OFC 3319 to exhibit, demonstrate, or simulate using flame effects. Each applicant for a permit shall show the applicant's license as a flame effects exhibitor's license to the local fire code official and, upon request, to the police chief or other similar law enforcement officer.

Flame Effects Definitions

Authority Having Jurisdiction (AHJ)
An organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation, or a procedure.

Accumulator
A container or piping that holds a predetermined volume of fuel that is ready for use in a flame effect.

Accumulator Charge Valve
A valve used to control the flow of fuel into an accumulator.

Arm
That sequence of control system functions for the establishing of a source of ignition that must be complete and verified immediately before the firing of the flame effect.

Cast Members
Performers involved in a production involving the use of flame effects that may or may not be employees. (Many amusement employees are also referred to as “cast members.”)

Direct Ignition
An automatic or manual ignition system that ignites fuel without a pilot.

Effect Valve
The last fuel shutoff valve before the flame effect burner.

Emergency Stop [Emergency Shutdown (ESD) System]
A circuit or other mechanism that when actuated, results in the complete shutdown and extinguishment of all flame effects that are controlled by it.

Enable
The final set of control system functions that must be verified to be in a specific control mode immediately before the arming and firing of a flame effect may be implemented.

Enable Button
The control operator that is manually actuated by the operator prior to and during the arming and firing of the effect.

Fail-Safe
A state or an attribute of a system such that every single point failure in the system results in all controlling parts of the system with the ability to do harm to humans, animals, or equipment being disconnected from all sources of power and stored energy at the primary disconnect point.

Flame Effect
The combustion of flammable solids, liquids, or gases to produce thermal, physical, visual, or audible phenomena before an audience.

Flame Effect Assistant
A person who works under the supervision of the flame effect operator.

Flame Effects Burner
A burner designed to produce specific sizes and configurations of flames for flame effects. Industry calls this the cannon

Flame Effects Operator
The single person with overall responsibility for flame effects operations and safety.

Holding Area
An area where flame effect material or loaded flame effect devices are held prior to use.

Primary Safety Control
A control with a sensor that is directly responsive to the ignition device attributes necessary for the safe operation of the effect.

Proven Pilot
A pilot flame supervised by a primary safety control.

Proof-of-Closure Valve
A safety shutoff valve equipped with an interlock switch that is actuated only when the valve is fully closed.

Proximate Audience
An audience closer to pyrotechnic devices than permitted by NFPA 1123 as listed in rule 1301:7-7-45 of the Administrative Code.

Safety Shutdown (Lockout)
The safe shutdown of the flame effect in the event of the actuation of any flame effect primary safety control or limit switch.

Safety Shutoff Valve
A fast-closing valve that automatically and completely shuts off the fuel supply in response to a normal or safety shutdown.

Safety-Critical
The failure of a device, component, system, or mechanism, which results in a situation that is immediately dangerous to life, health, or property.

Supervisory Cock
A manually actuated valve with two double-pole, double-throw switches that prove the valve position.

Supervisory Control System
A manual or automatic control system that supervises the operation of the flame effect.

Vent Valve
A normally open, power-closed valve, normally located between the two safety shutoff valves.

Venue
The property, facility, building, or room within a building where flame effects are used, intended to be used, or are prohibited.

Flame Effects Burners

Flame Bars

NFPA 160 Class	Description	Permanent / Temporary	Attended	Controls: Flame Verification	Controls: Effect Valve	Controls: Control System	Controls: Show Control	Proximate Performers	Misc.
I	Torches, cigarette lighters, candles, matches	Temporary							If it's a flame, and it's in front of an audience, it's at least a Class I effect.
II	Unattended torches, burning urns, small fires	Temporary, Permanent							INDOORS
III	Effects in traveling shows concerts	Temporary		OR	OR				Two fuel shutoff valves required, one safety
IV	Stand alone permanent flame effect	Permanent							Fuel Supervisory Station Primary Limit Devices
V	A flame effect part of a large show, NO proximate performers	Temporary, Permanent							Fuel Supervisory Station Primary Limit Devices
VI	A flame effect part of a large show, WITH proximate performers	Temporary, Permanent							Fuel Supervisory Station Primary Limit Devices Fail-Safe Postive Manual Enable
VII	Anything else	Temporary, Permanent		OR				Optional	As recommended by designe and approved by AHJ

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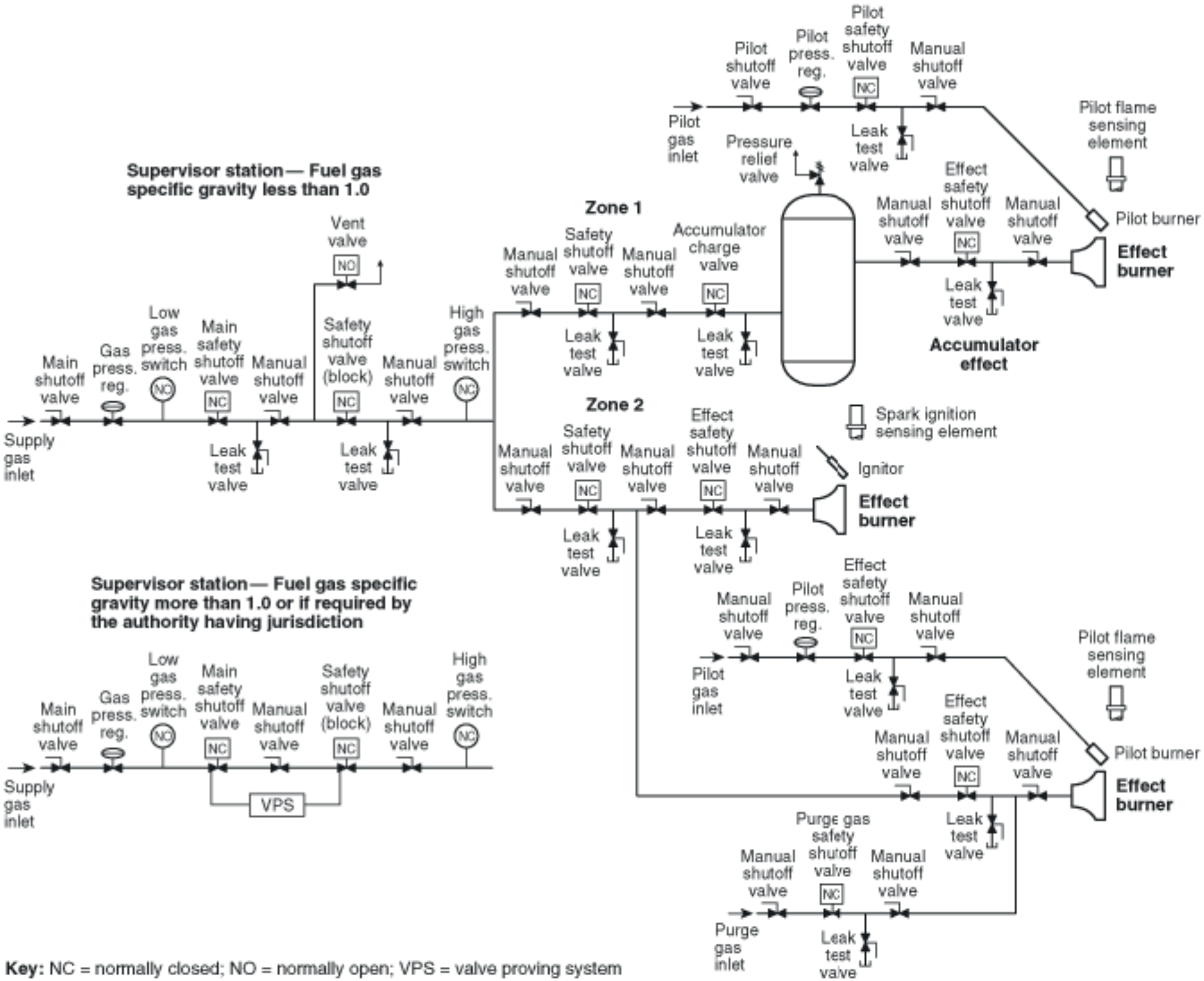

Key: NC = normally closed; NO = normally open; VPS = valve proving system

Temporary Storage Of Fireworks At The Exhibition Site

1. The area in which the storage magazine is located shall be approved by the local fire code official.

2. The vehicle is locked with the brake set.

3. The vehicle is immobilized using a steering wheel bar locking device.

4. The vehicle is placarded in accordance with Department of Transportation (DOT) requirements.

5. The temporary storage will not exceed 14 days.

6. A watchman will attend the truck at all times. Security personnel will check the premises on a regular basis.

7. Volatile materials are to be kept a distance of not less than 50 feet from outdoor magazines.

8. The Ohio Fire Code (OFC) only allows for fireworks storage at the exhibition site, for product to be used in that one permitted exhibition. A variance from the State Fire Marshal's office and approval of the AHJ must be obtained before additional shows can be stored at that location.

For detailed information regarding the temporary storage of fireworks please reference OFC 1301:7-7-33(J) Section 3310.

Table 3304.5.2(1)
American table of distances for storage of explosives as approved by the Institute of makers of explosives and revised June 1991

Quantity of explosive materials		Distances in feet							
		Inhabited buildings		Public highways with traffic volume less than 3,000 vehicles per day		Public highways with traffic volume greater than 3,000 vehicles per day and passenger railways		Separation of magazines	
Pounds over	Pounds not over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
0	5	70	140	30	60	51	102	6	12
5	10	90	180	35	70	64	128	8	16
10	20	110	220	45	90	81	162	10	20
20	30	125	250	50	100	93	186	11	22
30	40	140	280	55	110	103	208	12	24
40	50	150	300	60	120	110	220	14	28
50	75	170	340	70	140	127	254	15	30
75	100	190	380	75	150	139	278	16	32
100	125	200	400	80	160	150	300	18	36
125	150	215	430	85	170	159	318	19	38
150	200	235	470	95	190	175	350	21	42
200	250	255	510	105	210	189	378	23	46
250	300	270	540	110	220	201	402	24	48
300	400	295	590	120	240	221	442	27	54
400	500	320	640	130	260	238	476	29	58
500	600	240	480	135	270	253	506	31	62
600	700	355	710	145	290	266	532	32	64
700	800	375	750	150	300	278	556	33	66
800	900	390	780	155	310	289	578	35	70
900	1,000	400	800	160	320	300	600	36	72
1,000	1,200	425	850	165	330	318	636	39	78
1,200	1,400	450	900	170	340	336	672	41	82
1,400	1,600	470	940	175	350	351	702	43	86
1,600	1,800	490	980	180	360	366	732	44	88
1,800	2,000	505	1,010	185	370	378	756	45	90
2,000	2,500	545	1,090	190	380	408	816	49	98
2,500	3,000	580	1,160	195	390	432	864	52	104
3,000	4,000	635	1,270	210	420	474	948	58	116
4,000	5,000	685	1,370	225	450	513	1,026	61	122
5,000	6,000	730	1,460	235	470	546	1,092	65	130
6,000	7,000	770	1,540	245	490	573	1,146	68	136
7,000	8,000	800	1,600	250	500	600	1,200	72	144
8,000	9,000	835	1,670	255	510	624	1,248	75	150
9,000	10,000	865	1,730	260	520	645	1,290	78	156
10,000	12,000	875	1,750	270	540	687	1,374	82	164
12,000	14,000	885	1,770	275	550	723	1,446	87	174
14,000	16,000	900	1,800	280	560	756	1,512	90	180
16,000	18,000	940	1,880	285	570	786	1,572	94	188
18,000	20,000	975	1,950	290	580	813	1,626	98	196
20,000	25,000	1,055	2,000	315	630	876	1,752	105	210

Table 3304.5.2(1) Continued
American table of distances for storage of explosives as approved by the Institute of makers of explosives and revised June 1991

Quantity of explosive materials		Distances in feet							
		Inhabited buildings		Public highways with traffic volume less than 3,000 vehicles per day		Public highways with traffic volume greater than 3,000 vehicles per day and passenger railways		Separation of magazines	
Pounds over	Pounds not over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
25,000	30,000	1,130	2,000	340	680	933	1,866	112	224
30,000	35,000	1,205	2,000	360	720	981	1,962	119	238
35,000	40,000	1,275	2,000	380	760	1,026	2,000	124	248
40,000	45,000	1,340	2,000	400	800	1,068	2,000	129	258
45,000	50,000	1,400	2,000	420	840	1,104	2,000	135	270
50,000	55,000	1,460	2,000	44	88	1,140	2,000	140	280
55,000	60,000	1,515	2,000	455	910	1,173	2,000	145	290
60,000	65,000	1,565	2,000	470	940	1,206	2,000	150	300
65,000	70,000	1,610	2,000	485	970	1,236	2,000	155	310
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000	160	320
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000	165	330
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000	170	340
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000	175	350
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000	180	360
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000	185	370
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000	195	390
110,000	120,000	1,855	2,000	555	1,110	1,479	2,000	205	410
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000	215	430
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000	225	450
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000	235	470
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000	245	490
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000	255	510
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000	265	530
180,000	190,000	2,010	2,010	605	1,210	1,725	2,000	275	550
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000	285	570
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000	295	590
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000	315	630
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000	335	670
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000	360	720
275,000	300,000[b]	2,275	2,275	690	1,380	2,000	2,000	385	770

SAFETY OFFICER DUTIES AT FIREWORKS FACILITIES

As required by Ohio Revised Code section 3743.19(M)

A safety officer shall be present during regular business hours at a building open to the public during the period commencing fourteen days before, and ending two days after, each fourth day of July. The officer shall be highly visible, enforce this chapter and any applicable building codes to the extent the officer is authorized by law, and be one of the following:

(1) A deputy sheriff;

(2) A law enforcement officer of a municipal corporation, township, or township or joint police district;

(3) A private uniformed security guard registered under section 4749.06 of the Revised Code

As the Safety Officer you should familiarize yourself with the evacuation plan and egress patterns posted in the showroom as well as the inter-linked fire detection / smoke exhaust system and operation's procedures.

The safety officer shall enforce the following procedures:

- No alcohol is permitted on the premise as required by law ORC 3743.19(F).
- No smoking.
- No sources of ignition, either open or concealed (i.e., cigarettes, matches, lighters, cigars, or other flame producing items) may be carried onto the premise or beyond the designated NO SMOKING AREA as required by ORC 3743.19(D).
- Maintain crowd control when necessary in the parking lot and waiting areas, such as the line of patrons waiting to enter facility. An adult shall accompany minors (under the age of 18) at all times.
- Keep fire lanes open and unobstructed as required.
- Enforce operating procedures of wholesale fireworks:
  1. Patrons must have a shirt and shoes on to enter the facility.
  2. No food or drink is allowed in the firework's showroom.
  3. Loud and abusive behavior and profane language will not be tolerated.
  4. No pets allowed inside the fireworks showroom. (except guide and service dogs)
- In accordance with state law no fireworks can be discharged in the State of Ohio. (no testing)
- Locate fire extinguishers.
- Identify proper procedures to notify emergency service (i.e. 911)
- Shall ensure the posted occupancy load is not exceeded.
- Restrict any person under age of 18 from entering store unless with adult.
- Eject any person that is in any way disruptive to the safe operation of the premises.

Use the link below for a complete listing of fireworks wholesalers, manufacturers, and out-of-state shippers licensed in Ohio

https://www.comapps.ohio.gov/sfm/fire_apps/fmtr/LicenseLookup/

Official Notification

of License Revocation

Ohio Revised Code (ORC) 3743.52(B)
This law requires the Division of State Fire Marshal to notify fire chiefs, fire prevention officers, police chiefs and other similar chief law enforcement officers of municipal corporations, townships, or township police districts of the revocation of an exhibitor's license. Each circumstance is investigated by the Division of State Fire Marshal.

56-67-0010 Van E. Burnett

Educational References

US Department of Transportation

http://www.dot.gov/

Bureau of Alcohol, Tobacco, Firearms, & Explosives

http://www.atf.gov/

Public Utilities Commission of Ohio

http://www.puco.ohio.gov/puco/

Bureau of Explosives

http://boe.aar.com/

National Consumer Product Safety Commission

http://www.cpsc.gov/

United States Department of Labor - OSHA

http://www.osha.gov/SLTC/pyrotechnic/retail/retail.html

Association of American Railroads

http://www.aar.org

Federal Aviation Administration

http://www.faa.gov/

United States Coastguard

http://www.uscg.mil/default.asp

National Fire Protection Association

http://www.nfpa.org

American Pyrotechnics Association

http://www.americanpyro.com/

Pyrotechnics Guild International

http://www.pgi.org/

National Fireworks Association

http://nationalfireworks.org/

Fireworks Foundation

http://www.fireworksfoundation.org/

National Council of Fireworks Safety

http://www.fireworksafety.com/home.htm

NOVA Online

http://www.pbs.org/wgbh/nova/fireworks/

USDOT Hazardous Materials Table 49CFR 172.101

http://environmentalchemistry.com/yogi/hazmat/table/

Ohio Fire Code

(OFC)

1301:7-7-33

Yellow = Changes effective November 1, 2011

1301:7-7-33 Explosives and fireworks.

(A) **Section 3301 General**

(1) **3301.1 Scope.** The provisions of *paragraphs* (A)(3301) *to* (G)(3307) *of this rule* shall govern the possession, manufacture, storage, handling, sale and use of explosives, explosive materials, *matters described in section 3743.80 of the Revised Code and* small arms ammunition. *The provisions referencing fireworks in paragraphs* (A)(3301) *to* (E)(3305), (H)(3308) *to* (K)(3311) *and* (M)(3313) *to* (AA)(3327) *of this rule shall govern the possession, manufacture, storage, handling, sale and use of fireworks. The provisions of paragraph* (L)(3312) *of this rule shall govern the operation of flame effects.*

Exceptions:

1. The Armed Forces of the United States, Coast Guard or National Guard.

2. Explosives in forms prescribed by the official United States Pharmacopoeia.

3. The possession, storage and use of small arms ammunition when packaged in accordance with DOTn packaging requirements.

4. The possession, storage and use of not more than 1 pound (0.454 kg) of commercially manufactured sporting black powder, 20 pounds (9 kg) of smokeless powder and 10,000 small arms primers for hand loading of small arms ammunition for personal consumption.

5. The use of explosive materials by federal, state and local regulatory, law enforcement and fire agencies acting in their official capacities.

6. Special industrial explosive devices which in the aggregate contain less than 50 pounds (23 kg) of explosive materials.

7. The possession, storage and use of blank industrial–power load cartridges when packaged in accordance with DOTn packaging regulations.

8. Transportation in accordance with DOTn 49 CFR Parts 100-185 *as listed in rule 1301:7-7-47 of the Administrative Code*.

9. Items preempted by federal regulations.

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(a) **3301.1.1 Explosive material standard.** In addition to the requirements of this *rule*, NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code* shall govern the manufacture, transportation, storage, sale, handling and use of explosive materials.

(b) **3301.1.2 Explosive material terminals.** In addition to the requirements of this *rule*, the operation of explosive material terminals shall conform to the provisions of NFPA 498 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(c) **3301.1.3 Fireworks.** The possession, manufacture, storage, sale, handling, exhibition and use of fireworks are prohibited *except as permitted in accordance with Chapter 3743. of the Revised Code and this rule*.

(i) ***3301.1.3.1 Fireworks variances by state fire marshal.*** *In addition to the authority to grant modifications in accordance with paragraph* (D)(8)(104.8) *of rule 1301:7-7-01 of the Administrative Code, the state fire marshal may grant a variance to any provision of this code promulgated under the authority of Chapter 3743. of the Revised Code upon written application by an affected party and upon demonstration by that party of all of the following:*

(*a*) *That a literal enforcement of the provision will result in a practical difficulty in complying with the requirements of this code; and*

(*b*) *That the variance will not threaten the public health, safety or welfare.*

(ii) ***3301.1.3.2.*** *A request for variance submitted pursuant to this rule shall only be considered upon production of any information or documentation requested by the state fire marshal. The particulars of such variance when granted shall be in writing, entered upon the records of the state fire marshal and furnished to the applicant and the authority having jurisdiction, if said authority is other than the state fire marshal.*

(iii) ***3301.1.3.3.*** *Unless otherwise stipulated by the state fire marshal upon the granting of a variance, each variance granted pursuant to this rule shall automatically terminate one year from the date of its issuance.*

(iv) ***3301.1.3.4.*** *There shall be no automatic renewals of any variance granted pursuant to this rule. Each variance shall be specifically applied for in writing by the requesting party and independently considered by the state fire marshal.*

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(d) **3301.1.4 Rocketry.** The storage, handling and use of model and high-power rockets shall comply with the requirements of NFPA 1122, NFPA 1125 and NFPA 1127 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(e) **3301.1.5 Ammonium nitrate.** The storage and handling of ammonium nitrate shall comply with the requirements of NFPA 490 *as listed in rule 1301:7-7-47 of the Administrative Code* and *rule 1301:7-7-40 of the Administrative Code*.

Exception: Storage of ammonium nitrate in magazines with blasting agents shall comply with the requirements of NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(2) **3301.2 Permit required.** Permits shall be required as set forth in *rule 1301:7-7-01 of the Administrative Code* and regulated in accordance with this *rule*. *Permits required for manufacture, processing and explosives storage and explosive material storage as set forth in rule 1301:7-7-01 of the Administrative Code shall be obtained from the state fire marshal*.

(a) ***3301.2.1 Conditions for the issuance of a permit to manufacture, process or store explosives or explosive materials.*** *No permit shall be issued for the manufacturing, processing or storage of explosives or explosive materials unless the following conditions are met:*

(i) *The applicant submits an application for permit on a form prescribed by the state fire marshal.*

(ii) *The applicant pays the required fees and satisfies the background check and financial responsibility requirements as required by this rule.*

(iii) *The applicant provides a list of all explosives and explosive materials to be manufactured, processed or stored under the permit.*

(iv) *The applicant provides a map showing the distances between the locations of the activities subject to the permit and any adjacent structures, lot lines, railroads and roadways.*

(v) *The activities and locations subject to the permit have been inspected by the fire code official having jurisdiction and found to be in compliance with NFPA 495 as listed in rule 1301:7-7-47 of the Administrative Code and this code.*

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(b) ***3301.2.2*** **Residential uses.** No person shall keep or store, nor shall any permit be issued to keep or store, any explosives at any place of habitation, or within 100 feet (30 480 mm) thereof.

Exception: Storage of smokeless propellant, black powder and small arms primers for personal use and not for resale in accordance with *paragraph* (F)(3306) *of this rule*.

(c) ***3301.2.3*** **Sale and retail display.** No person shall construct a retail display nor offer for sale explosives, explosive materials or fireworks upon highways, sidewalks, public property or in Group A or E occupancies.

(d) ***3301.2.4*** **Permit restrictions.** The fire code official is authorized to limit the quantity of explosives, explosive materials or fireworks permitted at a given location. No person, possessing a permit for storage of explosives at any place, shall keep or store an amount greater than authorized in such permit. Only the kind of explosive specified in such a permit shall be kept or stored.

(e) ***3301.2.5*** **Financial responsibility.** Before a permit is issued, as required by *paragraph* (A)(2)(3301.2) *of this rule*, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of $100,000, *for the manufacture or processing of explosives or explosive materials $1,000,000* or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire code official is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

(i) ***3301.2.5.1*** **Blasting.** Before approval to do blasting is issued, the applicant for approval shall file a bond or submit a certificate of insurance in such form, amount and coverage as determined by the legal department of the jurisdiction to be adequate in each case to indemnify the jurisdiction against any and all damages arising from permitted blasting.

(ii) ***3301.2.5.2*** **Fireworks *exhibition.*** *The applicant for a fireworks exhibition permit shall provide to the local fire official and law enforcement officer an indemnity bond in the amount of at least one million dollars with surety satisfactory to the fire official and law enforcement officer of the jurisdiction, conditioned for payment of all final judgments that may be rendered against the*

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exhibitor on account of injury, death, or loss to persons or property emanating from the fireworks exhibition, or proof of insurance coverage of at least one million dollars for liability arising from injury, death, or loss to persons or property emanating from the fireworks exhibition.

(f) ***3301.2.6 Prohibition on permits and background check requirements.*** *No person shall be eligible for a permit for the manufacture, processing or storage of explosives under this code if the individual has been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States. All persons seeking a permit for the storage of explosives or explosive materials shall complete a civilian background check for criminal history as administered or approved by the state fire marshal. The state fire marshal may accept a currently valid "Certificate of Clearance" or other similar documentation issued by the bureau of alcohol, tobacco, firearms and explosives as satisfactory documentation of a person's criminal history. Applicants shall, upon request of the state fire marshal, provide the state fire marshal with certified copies, or other similar documentation, relating to the individual's civilian criminal background check.*

(3) **3301.3 Prohibited explosives.** Permits shall not be issued or renewed for possession, manufacture, storage, handling, sale or use of the following materials and such materials currently in storage or use shall be disposed of in an approved manner.

(a) Liquid nitroglycerin

(b) Dynamite containing more than 60-*per cent* liquid explosive ingredient.

(c) Dynamite having an unsatisfactory absorbent or one that permits leakage of a liquid explosive ingredient under any conditions liable to exist during storage.

(d) Nitrocellulose in a dry and uncompressed condition in a quantity greater than 10 pounds (4.54 kg) of net weight in one package.

(e) Fulminate of mercury in a dry condition and fulminate of all other metals in any condition except as a component of manufactured articles not hereinafter forbidden.

(f) Explosive compositions that ignite spontaneously or undergo marked decomposition, rendering the products of their use more hazardous, when subjected for 48 consecutive hours or less to a temperature of 167°F (75°C).

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(g) New explosive materials until approved by DOTn, except that permits are allowed to be issued to educational, governmental or industrial laboratories for instructional or research purposes.

(h) Explosive materials condemned by DOTn.

(i) Explosive materials containing an ammonium salt and a chlorate.

(j) Explosives not packed or marked as required by DOTn 49 CFR, Parts 100-185 *as listed in rule 1301:7-7-47 of the Administrative Code*.

Exception: Gelatin dynamite.

(4) **3301.4 Qualifications.** Persons in charge of magazines, blasting, fireworks *exhibition* or pyrotechnic special effect operations shall not be under the influence of alcohol or drugs which impair sensory or motor skills, shall be at least 21 years of age and shall demonstrate knowledge of all safety precautions related to the storage, handling or use of explosives, explosive materials or fireworks.

(5) **3301.5 Supervision.** The fire code official is authorized to require operations permitted under the provisions of *paragraph* (A)(2)(3301.2) *of this rule* to be supervised at any time by the fire code official in order to determine compliance with all safety and fire regulations.

(6) **3301.6 Notification.** Whenever a new explosive material storage or manufacturing site is established, including a temporary job site, the local law enforcement agency, fire department and local emergency planning committee shall be notified 48 hours in advance, not including Saturdays, Sundays and holidays, of the type, quantity and location of explosive materials at the site.

(7) **3301.7 Seizure.** The fire code official is authorized to remove or cause to be removed or disposed of in an approved manner, at the expense of the owner, explosives, explosive materials offered or exposed for sale, stored, possessed or used in violation of this *rule*. *The fire code official may seize fireworks in accordance with division (B) of section 3743.68 of the Revised Code.*

(a) ***3301.7.1 Seizure of fireworks.*** *The authority seizing any fireworks shall notify the state fire marshal not more than three days following the date of the seizure and shall state the reason for the seizure, as well as the quantity, type, and location of the fireworks. Any fireworks seized pursuant to division* (B) *of section 3743.68 of the Revised Code shall be made in accordance with statutory and constitutional provisions governing searches and seizures by law enforcement officers. The state fire marshal's or certified fire safety inspector's office shall keep the seized fireworks pending the time they are no longer needed as evidence. A sample of the seized fireworks is sufficient for evidentiary purposes. The*

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remainder of the seized fireworks may be disposed of pursuant to an order from a court of competent jurisdiction after notice and a hearing. The state fire marshal's or certified fire safety inspector's office may impound seized fireworks at the site where they were seized and cause them to be secured and held pending the time they are no longer needed as evidence.

(b) ***3301.7.2 Disposal of unneeded fireworks.*** *Fireworks disposed of by the state fire marshal or certified fire safety inspector or law enforcement officer shall be in a manner prescribed by the state fire marshal after final determination by the court or upon final termination of proceedings, whichever is later and the state fire marshal or that office is not liable for claims for the loss of or damages to the seized fireworks. If no proceedings are commenced pursuant to the rule, the state fire marshal may dispose of or order the disposal of the fireworks pursuant to Chapter 2981. of the Revised Code after all of the following:*

(i) *A random sampling of the fireworks has been taken.*

(ii) *An inventory list has been taken of all types and kinds of fireworks.*

(iii) *An analysis of the random sampling has been completed by the state fire marshal.*

(iv) *Photographs have been taken of the fireworks to be destroyed.*

(v) *The state fire marshal has given written approval for the destruction of the fireworks at least ten days prior to the date of disposal.*

(vi) *A disposal form shall be provided by the state fire marshal and such form shall be completed and state the specific total weight of the fireworks seized, the total weight of fireworks to be destroyed, and the total weight of the fireworks not to be destroyed.*

(8) **3301.8 Establishment of quantity of explosives and distances.** The quantity of explosives and distances shall be in accordance with *paragraphs* (A)(8)(a)(3301.8.1) and (A)(8)(a)(i)(3301.8.1.1) *of this rule*.

(a) **3301.8.1 Quantity of explosives.** The quantity-distance (Q-D) tables in *paragraphs* (D)(5)(3304.5) and (E)(3)(3305.3) *of this rule* shall be used to provide the minimum separation distances from potential explosion sites as set forth in Tables 3301.8.1(1) *to* 3301.8.1(3) *of this rule*. The classification and the weight of the explosives are primary characteristics governing the use of these tables. The net explosive weight shall be determined in accordance with *paragraphs* (A)(8)(a)(i)(3301.8.1.1) *to* (A)(8)(a)(iv)(3301.8.1.4) *of this rule*.

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Table 3301.8.1(1)
Application of separation distance (Q-D) tables-Division 1.1, 1.2 and 1.5 explosives[a,b,c]

Item	Magazine	Q-D	Operating building	Q-D	Inhabited building	Q-D	Public traffic route	Q-D
Magazine	Table 3304.5.2(1) *of this rule*	IMD	Table 3305.3 *of this rule*	ILD or IPD	Table 3304.5.2(1) *of this rule*	IBD	Table 3304.5.2(1) *of this rule*	PTR
Operating building	Table 3304.5.2(1) *of this rule*	ILD or IPD	Table 3305.3 *of this rule*	ILD or IPD	Table 3304.5.2(1) *of this rule*	IBD	Table 3304.5.2(1) *of this rule*	PTR
Inhabited building	Table 3304.5.2(1) *of this rule*	IBD	Table 3304.5.2 (1) *of this rule*	IBD	NA	NA	NA	NA
Public traffic route	Table 3304.5.2(1) *of this rule*	PTR	Table 3304.5.2(2) *of this rule*	PTR	NA	NA	NA	NA

For SI: 1 foot = 304.8 mm.

a. The minimum separation distance (D_0) shall be 60 feet. Where a building or magazine containing explosives is barricaded, the minimum distance shall be 30 feet.

b. Linear interpolation between tabular values in the referenced Q-D tables shall not be allowed. Nonlinear interpolation of the values shall be allowed subject to an approved technical opinion and report prepared in accordance with *paragraph* (D)(7)(b)(104.7.2) *of rule 1301:7-7-01 of the Administrative Code*.

c. For definitions of Quantity-Distance abbreviations IBD, ILD, IMD, IPD and PTR, see *paragraph* (B)(1)(3302.1) *of this rule*.

Table 3301.8.1(2)
Application of separation distance (Q-D) tables-Division 1.3 explosives[a,b,c]

Item	Magazine	Q-D	Operating building	Q-D	Inhabited building	Q-D	Public traffic route	Q-D
Magazine	Table 3304.5.2(2) *of this rule*	IMD	Table 3304.5.2 (2) *of this rule*	ILD or IPD	Table 3304.5.2(2) *of this rule*	IBD	Table 3304.5.2(2) *of this rule*	PTR
Operating	Table	ILD	Table	ILD	Table	IBD	Table	PTR

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building	3304.5.2(2) *of this rule*	or IPD	3304.5.2~~(3)~~ (2) *of this rule*	or IPD	3304.5.2(2) *of this rule*		3304.5.2(2) *of this rule*	
Inhabited building	Table 3304.5.2(2) *of this rule*	IBD	Table 3304.5.2 (2) *of this rule*	IBD	NA	NA	NA	NA
Public traffic route	Table 3304.5.2(2) *of this rule*	PTR	Table 3304.5.2 (2) *of this rule*	PTR	NA	NA	NA	NA

For SI: 1 foot = 304.8 mm.

a. The minimum separation distance (D_0) shall be a minimum of 50 feet.

b. Linear interpolation between tabular values in the referenced Q-D table shall be allowed.

c. For definitions of Quantity-Distance abbreviations IBD, ILD, IMD, IPD and PTR, see *paragraph* (B)(1)(3302.1) *of this rule*.

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Table 3301.8.1(3)
Application of separation distance (Q-D) tables-Division 1.4 Explosives[a,b,c,d]

Item	Magazine	Q-D	Operating building	Q-D	Inhabited building	Q-D	Public traffic route	Q-D
Magazine	Table 3304.5.2(3) *of this rule*	IMD	Table 3304.5.2(3) *of this rule*	ILD or IPD	Table 3304.5.2(3) *of this rule*	IBD	Table 3304.5.2(3) *of this rule*	PTR
Operating building	Table 3304.5.2(3) *of this rule*	ILD or IPD	Table 3304.5.2(3) *of this rule*	ILD or IPD	Table 3304.5.2(3) *of this rule*	IBD	Table 3304.5.2(3) *of this rule*	PTR
Inhabited building	Table 3304.5.2(3) *of this rule*	IBD	Table 3304.5.2(3) *of this rule*	IBD	NA	NA	NA	NA
Public traffic route	Table 3304.5.2(3) *of this rule*	PTR	Table 3304.5.2(3) *of this rule*	PTR	NA	NA	NA	NA

For SI: 1 foot = 304.8 mm.

a. The minimum separation distance (D_0) shall be a minimum of 50 feet.

b. Linear interpolation between tabular values in the referenced quantity-distance (Q-D) table shall not be allowed.

c. For definitions of Quantity-Distance abbreviations IBD, ILD, IMD, IPD and PTR, see *paragraph* (B)(1)(3302.1) *of this rule*.

d. This table shall not apply to consumer fireworks, 1.4G.

(i) **3301.8.1.1 Mass-detonating explosives.** The total net explosive weight of Division 1.1, 1.2 or 1.5 explosives shall be used. See Table 3304.5.2(1) or Table 3305.3 *of this rule* as appropriate.

Exception: When the TNT equivalence of the explosive material has been determined, the equivalence is allowed to be used to establish the net explosive weight.

(ii) **3301.8.1.2 Non-mass-detonating explosives (excluding Division 1.4).** Non-mass detonating explosives shall be as follows:

(*a*) Division 1.3 propellants. The total weight of the propellants alone shall be the net explosive weight. The net weight of propellant shall be used. See Table 3304.5.2(2) *of this rule*.

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(*b*) Combinations of bulk metal powder and pyrotechnic compositions. The sum of the net weights of metal powders and pyrotechnic compositions in the containers shall be the net explosive weight. See Table 3304.5.2(2) *of this rule*.

(iii) **3301.8.1.3 Combinations of mass-detonating and non-mass-detonating explosives (excluding Division 1.4).** Combination of mass-detonating and non-mass-detonating explosives shall be as follows:

(*a*) When Division 1.1 and 1.2 explosives are located in the same site, determine the distance for the total quantity considered first as 1.1 and then as 1.2. The required distance is the greater of the two. When the Division 1.1 requirements are controlling and the TNT equivalence of the 1.2 is known, the TNT equivalent weight of the 1.2 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight for Division 1.1 distance determination. See Table 3304.5.2(2) or Table 3305.3 *of this rule* as appropriate.

(*b*) When Division 1.1 and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as 1.1 and then as 1.3. The required distance is the greater of the two. When the Division 1.1 requirements are controlling and the TNT equivalence of the 1.3 is known, the TNT equivalent weight of the 1.3 items shall be allowed to be added to the total explosive weight of Division 1.1 items to determine the net explosive weight for Division 1.1 distance determination. See Table 3304.5.2(1), 3304.5.2(2) or 3305.3 *of this rule*, as appropriate.

(*c*) When Division 1.1, 1.2 and 1.3 explosives are located in the same site, determine the distances for the total quantity considered first as 1.1, next as 1.2 and finally as 1.3. The required distance is the greatest of the three. As allowed by *paragraphs* (A)(8)(a)(iii)(*a*) and (A)(8)(a)(iii)(*b*) *of this rule*, TNT equivalent weights for 1.2 and 1.3 items are allowed to be used to determine the net weight of explosives for Division 1.1 distance determination. Table 3304.5.2(1) or 3305.3 of *this rule* shall be used when TNT equivalency is used to establish the net explosive weight.

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(*d*) For composite pyrotechnic items Division 1.1 and Division 1.3, the sum of the net weights of the pyrotechnic composition and the explosives involved shall be used. See Tables 3304.5.2(1) and 3304.5.2(2) *of this rule*.

(iv) **3301.8.1.4 Moderate fire-no blast hazards.** Division 1.4 explosives. The total weight of the explosive material alone is the net weight. The net weight of the explosive material shall be used.

(B) **Section 3302 Definitions**

(1) **3302.1 Definitions.** The following words and terms shall, for the purposes of this *rule* and as used elsewhere in this code, have the meanings shown herein.

"Ammonium nitrate." A chemical compound represented by the formula NH_4NO_3.

"Authority having jurisdiction." *The organization, officer, or individual responsible for approving equipment, an installation, or a procedure.*

"Barricade." A structure that consists of a combination of walls, floor and roof, which is designed to withstand the rapid release of energy in an explosion and which is fully confined, partially vented or fully vented; or other effective method of shielding from explosive materials by a natural or artificial barrier.

"Artificial barricade." An artificial mound or revetment a minimum thickness of 3 feet (914 mm).

"Natural barricade." Natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures that require protection cannot be seen from the magazine or building containing explosives when the trees are bare of leaves.

"Barricaded." The effective screening of a building containing explosive materials from the magazine or other building, railway or highway by a natural or an artificial barrier. A straight line from the top of any sidewall of the building containing explosive materials to the eave line of any magazine or other building or to a point 12 feet (3658 mm) above the center of a railway or highway shall pass through such barrier.

"Beer and intoxicating liquor." *Have the same meanings as in section 4301.01 of the Revised Code.*

"Black match." *A fuse made from thread impregnated with black powder and used for igniting pyrotechnic devices.*

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"Blast area." The area including the blast site and the immediate adjacent area within the influence of flying rock, missiles and concussion.

"Blast site." The area in which explosive materials are being or have been loaded and which includes all holes loaded or to be loaded for the same blast and a distance of 50 feet (15 240 mm) in all directions.

"Blaster." A person qualified in accordance with *paragraph* (A)(4)(3301.4) *of this rule* to be in charge of and responsible for the loading and firing of a blast.

"Blasting agent." A material or mixture consisting of fuel and oxidizer, intended for blasting provided that the finished product, as mixed for use or shipment, cannot be detonated by means of a No. 8 test detonator when unconfined. Blasting agents are labeled and placarded as Class 1.5 material by US DOTn.

"Booby trap." *A small tube that has a string protruding from both ends, that has a friction-sensitive composition and that is ignited by pulling the ends of the string.*

"Break." *An individual effect from an aerial shell; generally either color (stars) or noise (salutes). Aerial shells can be single-break (having only one effect) or multiple-break (having two or more effects).*

"Bullet resistant." Constructed so as to resist penetration of a bullet of 150-grain M2 ball ammunition having a nominal muzzle velocity of 2,700 feet per second (fps) (824 mps) when fired from a 30-caliber rifle at a distance of 100 feet (30 480 mm), measured perpendicular to the target.

"Cigarette load." *A small wooden peg that is coated with a small quantity of explosive composition and that is ignited in a cigarette.*

"Controlled substance." *Has the same meaning as in section 3719.01 of the Revised Code.*

"CPSC." *The United States Consumer Product Safety Commission.*

"Detonating cord." A flexible cord containing a center core of high explosive used to initiate other explosives.

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"Detonation." An exothermic reaction characterized by the presence of a shock wave in the material which establishes and maintains the reaction. The reaction zone progresses through the material at a rate greater than the velocity of sound. The principal heating mechanism is one of shock compression. Detonations have an explosive effect.

"Detonator." A device containing any initiating or primary explosive that is used for initiating detonation. A detonator shall not contain more than 154.32 grains (10 grams) of total explosives by weight, excluding ignition or delay charges. The term includes, but is not limited to, electric blasting caps of instantaneous and delay types, blasting caps for use with safety fuses, detonating cord delay connectors, and noninstantaneous and delay blasting caps which use detonating cord, shock tube or any other replacement for electric leg wires. All types of detonators in strengths through No. 8 cap should be rated at 1½ pounds (0.68 kg) of explosives per 1,000 caps. For strengths higher than No. 8 cap, consult the manufacturer.

"Discharge site." *An area immediately surrounding the mortars used to fire aerial shells.*

"Display site." The immediate area where a fireworks *exhibition* is conducted. The *exhibition* area includes the discharge site, the fallout area and the required separation distance from the mortars to spectator viewing areas or vehicle parking areas.

"DOTn." *The United States Department of Transportation.*

"Explosive." A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to, dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, igniters and display fireworks, 1.3G (Class B, Special).

The term "explosive" includes any material determined to be within the scope of USC Title 18: Chapter 40 *as listed in rule 1301:7-7-47 of the Administrative Code* and also includes any material classified as an explosive other than consumer fireworks, 1.4G (Class C, Common) by the hazardous materials regulations of DOTn 49 CFR Parts 100-185 *as listed in rule 1301:7-7-47 of the Administrative Code*.

"High explosive." Explosive material, such as dynamite, which can be caused to detonate by means of a No. 8 test blasting cap when unconfined.

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"Low explosive." Explosive material that will burn or deflagrate when ignited. It is characterized by a rate of reaction that is less than the speed of sound. Examples of low explosives include, but are not limited to, black powder, safety fuse, igniters, igniter cord, fuse lighters, fireworks, 1.3G (Class B, Special) and propellants, 1.3C.

"Mass-detonating explosives." Division 1.1, 1.2 and 1.5 explosives alone or in combination, or loaded into various types of ammunition or containers, most of which can be expected to explode virtually instantaneously when a small portion is subjected to fire, severe concussion, impact, the impulse of an initiating agent or the effect of a considerable discharge of energy from without. Materials that react in this manner represent a mass explosion hazard. Such an explosive will normally cause severe structural damage to adjacent objects. Explosive propagation could occur immediately to other items of ammunition and explosives stored sufficiently close to and not adequately protected from the initially exploding pile with a time interval short enough so that two or more quantities must be considered as one for quantity-distance purposes.

"UN/DOTn Class 1 explosives." The former classification system used by DOTn included the terms "high" and "low" explosives as defined herein. The following terms further define explosives under the current system applied by DOTn for all explosive materials defined as hazard Class 1 materials. Compatibility group letters are used in concert with the Division to specify further limitations on each division noted (i.e., the letter G identifies the material as a pyrotechnic substance or article containing a pyrotechnic substance and similar materials).

"Division 1.1." Explosives that have a mass explosion hazard. A mass explosion is one which affects almost the entire load instantaneously.

"Division 1.2." Explosives that have a projection hazard but not a mass explosion hazard.

"Division 1.3." Explosives that have a fire hazard and either a minor blast hazard or a minor projection hazard or both, but not a mass explosion hazard.

"Division 1.4." Explosives that pose a minor explosion hazard. The explosive effects are largely confined to the package and no projection of fragments of appreciable size or range is to be expected. An external fire must not cause virtually instantaneous explosion of almost the entire contents of the package.

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"Division 1.5." Very insensitive explosives. This division is comprised of substances that have a mass explosion hazard but which are so insensitive that there is very little probability of initiation or of transition from burning to detonation under normal conditions of transport.

"Division 1.6." Extremely insensitive articles which do not have a mass explosion hazard. This division is comprised of articles that contain only extremely insensitive detonating substances and which demonstrate a negligible probability of accidental initiation or propagation.

"Explosive material." The term "explosive" material means explosives, blasting agents, and detonators.

"Fallout area." The area over which aerial shells are fired. The shells burst over the area, and unsafe debris and malfunctioning aerial shells fall into this area. The fallout area is the location where a typical aerial shell dud falls to the ground depending on the wind and the angle of mortar placement.

"Fireworks." *Any composition or device prepared for the purpose of producing a visible or an audible effect of combustion, deflagration, or detonation, except ordinary matches and except as provided in section 3743.80 of the Revised Code.*

*"**1.1G Fireworks**." Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.1G (UN0333) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.*

***"1.2G Fireworks."** Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.2G (UN0334) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.*

***"1.3G Fireworks."** Display fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.3G (UN0335) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.* (petition 1117)

***"1.4G Fireworks."** Consumer fireworks consistent with regulations of the United States Department of Transportation as expressed using the designation Division 1.4G (UN0336) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code or special effects fireworks as expressed using the designation Division 1.4G*

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(UN0431) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.

"1.4G Special effects fireworks." *Special effects fireworks intended for indoor use consistent with regulations of the United State Department of Transportation as expressed using the designation Division 1.4G (UN0431) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.*

"1.4S Fireworks." *Pyrotechnic devices for professional use in the performing arts in conjunction with theatrical, musical or other productions which are similar to "consumer fireworks" in chemical composition and construction but not intended for consumer use. Such fireworks shall be classified as Division 1.4S (UN0337) by DOTn and marked and labeled in conformance with Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code or special effects fireworks as expressed using the designation Division 1.4S (UN0432) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.*

"1.4S Special effects fireworks." *Special effects fireworks intended for indoor use as expressed using the designation Division 1.4S (UN0432) in Title 49, Code of Federal Regulations as listed in rule 1301:7-7-47 of the Administrative Code.*

"Fireworks *exhibition."* *Any presentation or discharge of fireworks. A fireworks exhibition includes but is not limited to, those displays conducted in accordance with the provisions of Chapter 3743. of the Revised Code, or any variance issued thereunder, this rule, and NFPA 1123 and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

"Fireworks incident." *Any action or omission that occurs at a fireworks exhibition, that results in injury or death, or a substantial risk of injury or death, to any person, and that involves either of the following:*

1. *The handling or other use, or the results of the handling or other use, of fireworks or associated equipment or other materials;*

2. *The failure of any person to comply with any applicable requirement imposed by this rule or any applicable rule adopted under this rule.*

"Fireworks incident site." *A discharge site or other location at a fireworks exhibition where a fireworks incident occurs, a location where an injury or death associated with a fireworks incident occurs, or a location where evidence of a*

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fireworks incident or an injury or death associated with a fireworks incident is found.

"Fireworks plant." *All buildings and other structures in which the manufacturing of fireworks, or the storage or sale of manufactured fireworks by a manufacturer, takes place.*

"Highway." *Any public street, road, alley, way, lane or other public thoroughfare.*

"Inhabited building." A building regularly occupied in whole or in part as a habitation for people or any place of religious worship, schoolhouse, railroad station, store or other structure where people are accustomed to assemble, except any building or structure occupied in connection with the manufacture, transportation, storage or use of explosive materials.

"Interlinked fire detection." *An automatic fire detection system installed in accordance with the building code listed in rule 1301:7-7-47 of the Administrative Code, interconnected with the smoke control system.*

"Licensed building." *A building on the licensed premises of a licensed manufacturer or wholesaler of fireworks that is approved for occupancy by the building official having jurisdiction.*

"Licensed exhibitor of fireworks or licensed exhibitor." *A person licensed pursuant to sections 3743.50 to 3743.55 of the Revised Code. This includes a licensed exhibitor of indoor fireworks (Type II exhibitor license) or a licensed exhibitor of outdoor/indoor fireworks (Type I exhibitor license).*

"Licensed exhibitor of indoor fireworks." *A person licensed pursuant to this rule to conduct indoor exhibitions in accordance with NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code of 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432). This is also known as a Type II exhibitor's license.*

"Licensed exhibitor of outdoor/indoor fireworks." *A person licensed pursuant to this rule to conduct outdoor or indoor fireworks exhibitions in accordance with NFPA 1123 and the applicable standards of NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code of 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0432), 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432). This is also known as a Type I exhibitor's license.*

"Licensed manufacturer of fireworks or licensed manufacturer." *A person licensed pursuant to sections 3743.02 to 3743.08 of the Revised Code.*

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"Licensed premises." *The approved real estate upon which a licensed manufacturer or wholesaler of fireworks conducts business. Licensed premises includes but is not limited to: all property within identified boundaries, approved storage locations, and all buildings, structures, or other temporary or permanent fixtures located thereon.*

"Licensed wholesaler of fireworks or licensed wholesaler." *A person licensed pursuant to sections 3743.15 to 3743.21 of the Revised Code.*

"List of licensed exhibitors." *The list required by division (C) of section 3743.51 of the Revised Code.*

"List of licensed manufacturers." *The list required by division (C) of section 3743.03 of the Revised Code.*

"List of licensed wholesalers." *The list required by division (C) of section 3743.16 of the Revised Code.*

"Magazine." A building, structure or container, other than an operating building, approved for storage of explosive materials.

"Indoor." A portable structure, such as a box, bin or other container, constructed as required for Type 2, 4 or 5 magazines in accordance with NFPA 495, NFPA 1124, or DOTy 27 CFR Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code* so as to be fire resistant and theft resistant.

"Type 1." A permanent structure, such as a building or igloo, that is bullet resistant, fire resistant, theft resistant, weather resistant and ventilated in accordance with the requirements of NFPA 495, NFPA 1124, or DOTy 27 CFR Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code*.

"Type 2." A portable or mobile structure, such as a box, skid-magazine, trailer or semitrailer, constructed in accordance with the requirements of NFPA 495, NFPA 1124, or DOTy 27 CFR, Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code* that is fire resistant, theft resistant, weather resistant and ventilated. If used outdoors, a Type 2 magazine is also bullet resistant.

"Type 3." A fire resistant, theft resistant and weather resistant "day box" or portable structure constructed in accordance with NFPA 495, NFPA 1124 or DOTy 27 CFR, Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code* used for the temporary storage of explosive materials.

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"Type 4." A permanent, portable or mobile structure such as a building, igloo, box, semitrailer or other mobile container that is fire resistant, theft resistant and weather resistant and constructed in accordance with NFPA 495, NFPA 1124 or DOTy CFR, Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code*.

"Type 5." A permanent, portable or mobile structure such as a building, igloo, box, bin, tank, semitrailer, bulk trailer, tank trailer, bulk truck, tank truck or other mobile container that is theft resistant, which is constructed in accordance with NFPA 495, NFPA 1124, or DOTy 27 CFR, Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code*.

"Manufacturing of fireworks." *The making of fireworks from raw materials, none of which in and of themselves constitute fireworks, or the processing of fireworks.*

"Mortar." A tube from which fireworks shells are fired into the air.

"Navigable waters." *Any body of water susceptible of being used in its ordinary condition as a highway of commerce over which trade and travel is or may be conducted in the customary modes, but does not include a body of water that is not capable of navigation by barges, tugboats, and other large vessels.*

"Net explosive weight (net weight)." The weight of explosive material expressed in pounds. The net explosive weight is the aggregate amount of explosive material contained within buildings, magazines, structures or portions thereof, used to establish quantity-distance relationships.

"Novelties and trick noisemakers." *Include the following items:*

1. *Devices that produce a small report intended to surprise the user, including, but not limited to, booby traps, cigarette loads, party poppers, and snappers;*

2. *Snakes or glow worms;*

3. *Smoke devices;*

4. *Trick matches.*

"Operating building." A building occupied in conjunction with the manufacture, transportation or use of explosive materials. Operating buildings are separated from one another with the use of intraplant or intraline distances.

"Operating line." A group of buildings, facilities or workstations so arranged as to permit performance of the steps in the manufacture of an explosive or in the

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loading, assembly, modification and maintenance of ammunition or devices containing explosive materials.

"Party popper." *A small plastic or paper item that contains not more than sixteen milligrams of friction-sensitive explosive composition, that is ignited by pulling a string protruding from the item, and from which paper streamers are expelled when the item is ignited.*

"Plosophoric material." Two or more unmixed, commercially manufactured, prepackaged chemical substances including oxidizers, flammable liquids or solids, or similar substances that are not independently classified as explosives but which, when mixed or combined, form an explosive that is intended for blasting.

"Processing of fireworks." *The making of fireworks from materials all or part of which in and of themselves constitute fireworks, but does not include the mere packaging or repackaging of fireworks.*

"Proximate audience." An audience closer to pyrotechnic devices than allowed by NFPA 1123 *as listed in rule 1301:7-7-47 of the Administrative Code*.

"Public Traffic Route (PTR)." Any public street, road, highway, navigable stream or passenger railroad that is used for through traffic by the general public.

"Pyrotechnic composition." *A chemical mixture which upon burning and without explosion, produces a visible brilliant display, bright lights, or sounds.*

"Pyrotechnic special effect." A visible or audible effect for entertainment created through the use of pyrotechnic materials and devices.

"Pyrotechnic special-effect material." A chemical mixture used in the entertainment industry to produce visible or audible effects by combustion, deflagration or detonation. Such a chemical mixture predominantly consists of solids capable of producing a controlled, self-sustaining and self-contained exothermic chemical reaction that results in heat, gas, sound, light or a combination of these effects. The chemical reaction functions without external oxygen.

"Quantity-Distance (Q-D)." The quantity of explosive material and separation distance relationships providing protection. These relationships are based on levels of risk considered acceptable for the stipulated exposures and are tabulated in the appropriate Q-D tables. The separation distances specified afford less than absolute safety:

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"Inhabited building distance (IBD)." The minimum separation distance between an operating building or magazine containing explosive materials and an inhabited building or site boundary.

"Intermagazine distance (IMD)." The minimum separation distance between magazines.

"Intraline distance (ILD) or Intraplant distance (IPD)." The distance to be maintained between any two operating buildings on an explosives manufacturing site when at least one contains or is designed to contain explosives, or the distance between a magazine and an operating building.

"Minimum separation distance (D_0)." The minimum separation distance between adjacent buildings occupied in conjunction with the manufacture, transportation, storage or use of explosive materials where one of the buildings contains explosive materials and the other building does not.

"Railroad." *Any railway or railroad that carries freight or passengers for hire, but does not include auxiliary tracks, spurs, and sidings installed and primarily used in serving a mine, quarry, or plant.*

"Railway." A steam, electric or other railroad or railway that carriers passengers for hire.

"Ready box." A weather-resistant container with a self-closing or automatic-closing cover that protects fireworks shells from burning debris. Tarpaulins shall not be considered as ready boxes.

"Representative sample showroom." *A structure constructed and maintained in accordance with the building code as listed in rule 1301:7-7-47 of the Administrative Code and this code for a use and occupancy group that permits mercantile sales. A representative sample showroom shall not contain any pyrotechnics, pyrotechnic materials, fireworks, explosives, explosive materials, or any similar hazardous materials or substances.*

"Retail sale or sell at retail." *A sale of fireworks to a purchaser who intends to use the fireworks, and not resell them.*

"Small arms ammunition." A shotgun, rifle or pistol cartridge and any cartridge for propellant-actuated devices. This definition does not include military ammunition containing bursting charges or incendiary, trace, spotting or pyrotechnic projectiles.

"Small arms primers." Small percussion-sensitive explosive charges, encased in a cap, used to ignite propellant powder.

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"Smoke device." *A tube or sphere that contains pyrotechnic composition that, upon ignition, produces white or colored smoke as the primary effect.*

"Smokeless propellants." Solid propellants, commonly referred to as smokeless powders, used in small arms ammunition, cannons, rockets, propellant-actuated devices and similar articles.

"Snapper." *A small, paper-wrapped item that contains a minute quantity of explosive composition coated on small bits of sand, and that when dropped, implodes.*

"Snake or glow worm." *A device that consists of a pressed pellet of pyrotechnic composition that produces a large, snake-like ash upon burning, which ash expands in length as the pellet burns.*

"Special industrial explosive device." An explosive power pack containing an explosive charge in the form of a cartridge or construction device. The term includes but is not limited to explosive rivets, explosive bolts, explosive charges for driving pins or studs, cartridges for explosive-actuated power tools and charges of explosives used in automotive air bag inflators, jet tapping of open hearth furnaces and jet perforation of oil well casings.

"Storage location." *A single parcel or contiguous parcels of real estate approved by the state fire marshal pursuant to division (I) of section 3743.04 of the Revised Code or division (G) of section 3743.17 of the Revised Code that are separate from a licensed premises containing a retail showroom, and which parcel or parcels a licensed manufacturer or wholesaler of fireworks may use only for the distribution, possession, and storage of fireworks in accordance with Chapter 3743. of the Revised Code and this rule.*

"Theft resistant." Constructed designed to deter illegal entry into facilities for the storage of explosive materials.

"Trick match." *A kitchen or book match that is coated with a small quantity of explosive composition and that, upon ignition, produces a small report or a shower of sparks.*

"Wholesale sale or sell at wholesale." *A sale of fireworks to a purchaser who intends to resell the fireworks so purchased.*

"Wire sparkler." *A sparkler consisting of a wire or stick coated with a nonexplosive pyrotechnic mixture that produces a shower of sparks upon ignition and that contains no more than one hundred grams of this mixture.*

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(2) ***3302.2 Terms used for paragraph* (P)(10)(3316.10) *of this rule.*** *In accordance with section 3743.75 of the Revised Code, the following terms, only as used in paragraph* (P)(10)(3316.10)*, have the following exclusive meanings:*

"Particular location." *A licensed premises and, regardless of when approved, any storage location approved in accordance with section 3743.04 or 3743.17 of the Revised Code and this rule.*

"Person." *Any person or entity, in whatever form or name, that acquires possession of a manufacturer or wholesaler of fireworks license issued pursuant to this rule by transfer of possession of license, whether that transfer occurs by purchase, assignment, inheritance, bequest, stock transfer, or any other type of transfer, on the condition that the transfer is in accordance with division* (D) *of section 3743.04 of the Revised Code or division* (D) *of section 3743.17 of the Revised Code and is approved by the state fire marshal.*

(C) **Section 3303 Record keeping and reporting**

(1) **3303.1 General.** Records of the receipt, handling, use or disposal of explosive materials, and reports of any accidents, thefts or unauthorized activities involving explosive materials shall conform to the requirements of this *paragraph*. *Records relating to the manufacturing, sale, transportation, shipping, storage and possession of fireworks shall be created, maintained and disposed of in accordance with the Revised Code and this rule.*

(2) **3303.2 Transaction record.** The permittee shall maintain a record of all transactions involving receipt, removal, use or disposal of explosive materials. Such a record shall be maintained for a period of five years, and shall be furnished to the fire code official for inspection upon request.

Exception: Where only Division 1.4G (consumer fireworks) are handled, records need only be maintained for a period of three years.

(3) **3303.3 Loss, theft or unauthorized removal.** The loss, theft or unauthorized removal of explosive materials from a magazine or permitted facility shall be reported to the fire code official, local law enforcement authorities, and the U.S. Department of Treasury, Bureau of Alcohol, Tobacco and Firearms within 24 hours.

Exception: Loss of Division 1.4G (consumer fireworks) need not be reported to the Bureau of Alcohol, Tobacco and Firearms.

(a) ***3303.3.1 Fireworks.*** *Manufacturers, wholesalers, shippers and exhibitors shall report any theft or loss of any fireworks to the local law enforcement agency within twenty-four hours after the discovery of the theft or loss and shall send a copy of the report prepared by the local law enforcement*

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agency to the state fire marshal. If such report is unavailable, the manufacturer, wholesaler, shipper or exhibitor shall notify the state fire marshal of the investigating law enforcement agency. In the event of such theft or loss of any fireworks or pyrotechnic devices, the local fire code official shall cooperate with the state fire marshal in conducting a joint investigation of the circumstances.

(4) **3303.4 Accidents.** Accidents involving the use of explosives, explosive materials and fireworks, which result in injuries or property damage, shall be reported to the fire code official immediately.

(a) ***3303.4.1 Injury or damage report.*** *The local fire code official shall immediately make a report to the state fire marshal when any fireworks related fire, explosion, unauthorized discharge, personal injury, or other significant fireworks incident occurs, including all fires, explosions, personal injuries received or resulting from fireworks at a manufacturing plant, wholesale facility, from a shipment of fireworks in transit, or from fireworks at an exhibition. The report shall provide the location where the fire, explosion, or injury occurred and the name, address and telephone number of any person injured as a result when such information is available. The scene must be held until released by the state fire marshal.*

(5) **3303.5 Misfires.** The *licensed exhibitor of fireworks* or blaster in charge shall keep a record of all aerial shells that fail to fire or charges that fail to detonate.

(6) **3303.6 Hazard communication.** Manufacturers of explosive materials and fireworks shall maintain records of chemicals, chemical compounds and mixtures required by DOL 29 CFR, Part 1910.1200 *as listed in rule 1301:7-7-47 of the Administrative Code*, and *paragraph* (G)(407) *of rule 1301:7-7-04 of the Administrative Code*.

(7) **3303.7 Safety rules.** Current safety rules covering the operation of magazines, as described in *paragraph* (D)(7)(3304.7) *of this rule*, shall be posted on the interior of the magazine in a visible location.

(D) **Section 3304 Explosive materials storage and handling**

(1) **3304.1 General.** Storage of explosives and explosive materials, small arms ammunition, small arms primers, propellant-actuated cartridges and smokeless propellants in magazines shall comply with the provisions of this *paragraph*.

(2) **3304.2 Magazine required.** Explosives and explosive materials, and Division 1.3G fireworks shall be stored in magazines constructed, located, operated and maintained in accordance with the provisions of *paragraph* (D)(3304) *of this rule* and NFPA 495 or NFPA 1124 *as listed in rule 1301:7-7-47 of the Administrative Code*.

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Exceptions:

1. Storage of fireworks at display sites in accordance with *paragraph* (J)(3310) *of this rule* and NFPA 1123 or NFPA 1126 *as listed in rule 1301:7-7-47 of the Administrative Code*.

2. Portable or mobile magazines not exceeding 120 square feet (11 m^2) in area shall not be required to comply with the requirements of the *building code as listed in rule 1301:7-7-47 of the Administrative Code*.

(3) **3304.3 Magazines.** The storage of explosives and explosive materials in magazines shall comply with Table 3304.3 *of this rule*.

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Table 3304.3
Storage amounts and magazine requirements for explosives, explosive materials and fireworks, 1.3G maximum allowable quantity per control area

New UN/DOTn division	Old DOTn class	ATF/OSHA class	Indoor[a] (pounds)				Outdoor (pounds)	Magazine type required				
			Unprotected	Cabinet	Sprinklers	Sprinklers & cabinet		1	2	3	4	5
1.1[b]	A	High	0	0	1	2	1	X	X	X	--	--
1.2	A	High	0	0	1	2	1	X	X	X	--	--
1.2	B	Low	0	0	1	1	1	X	X	X	X	--
1.3	B	Low	0	0	5	10	1	X	X	X	X	--
1.4[c]	B	Low	0	0	50	100	1	X	X	X	X	--
1.5	C	Low	0	0	1	2	1	X	X	X	X	--
1.5	Blasting agent	Blasting agent	0	0	1	2	1	X	X	X	X	X
1.6	N/A	N/A	0	0	1	2	1	X	X	X	X	X

For SI: 1 pound = 0.454 kg, 1 pound per gallon = 0.12 kg per liter, 1 ounce = 28.35 g.

a. A factor of 10 pounds per gallon shall be used for converting pounds (solid) to gallons (liquid) in accordance with *paragraph* (C)(1)(b)(2703.1.2) *of rule 1301:7-7-27 of the Administrative Code*.

b. Black powder shall be stored in a Type 1, 2, 3 or 4 magazine as provided for in *paragraph* (D)(3)(a)(3304.3.1) *of this rule*.

c. This table shall not apply to consumer fireworks, 1.4G.

(a) **3304.3.1 High explosives.** Explosive materials classified as Division 1.1 or 1.2 or formerly classified as Class A by the U.S. Department of Transportation shall be stored in Type 1, 2 or 3 magazines.

Exceptions:

1. Black powder shall be stored in a Type 1, 2, 3 or 4 magazine.

2. Cap-sensitive explosive material that is demonstrated not to be bullet sensitive shall be stored in a Type 1, 2, 3, 4 or 5 magazine.

(b) **3304.3.2 Low explosives.** Explosive materials that are not cap sensitive shall be stored in a Type 1, 2, 3, 4 or 5 magazine.

(c) **3304.3.3 Detonating cord.** For quantity and distance purposes, detonating cord of 50 grains per foot shall be calculated as equivalent to 8 pounds (4 kg) of high explosives per 1,000 feet (305 m). Heavier or lighter core loads shall be rated proportionally.

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(4) **3304.4 Prohibited storage.** Detonators shall be stored in a separate magazine for blasting supplies and shall not be stored in a magazine with other explosive materials.

(5) **3304.5 Location.** The use of magazines for storage of explosives and explosive materials shall comply with *paragraphs* (D)(5)(a)(3304.5.1) *to* (D)(5)(c)(iii)(3304.5.3.3) *of this rule*.

(a) **3304.5.1 Indoor magazines.** The use of indoor magazines for storage of explosives and explosive materials shall comply with the requirements of this *paragraph*.

(i) **3304.5.1.1 Use.** The use of indoor magazines for storage of explosives and explosive materials shall be limited to occupancies in Group F, H, M or S, and research and development laboratories.

(ii) **3304.5.1.2 Construction.** Indoor magazines shall comply with the following construction requirements:

(*a*) Construction shall be fire resistant and theft resistant.

(*b*) Exterior shall be painted red.

(*c*) Base shall be fitted with wheels, casters or rollers to facilitate removal from the building in an emergency.

(*d*) Lid or door shall be marked with conspicuous white lettering not less than 3 inches (76 mm) high and minimum ½ inch (12.7 mm) stroke, reading "EXPLOSIVES-KEEP FIRE AWAY".

(*e*) The least horizontal dimension shall not exceed the clear width of the entrance door.

(iii) **3304.5.1.3 Quantity limit.** Not more than 50 pounds (23 kg) of explosives or explosive materials shall be stored within an indoor magazine.

Exception: Day boxes used for the storage of in-process material in accordance with *paragraph* (E)(6)(d)(i)(3305.6.4.1) *of this rule*.

(iv) **3304.5.1.4 Prohibited use.** Indoor magazines shall not be used within buildings containing Group R occupancies.

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(v) **3304.5.1.5 Location.** Indoor magazines shall be located within 10 feet (3048 mm) of an entrance and only on floors at or having ramp access to the exterior grade level.

(vi) **3304.5.1.6 Number.** Not more than two indoor magazines shall be located in the same building. Where two such magazines are located in the same building, one magazine shall be used solely for the storage of not more than 5,000 detonators.

(vii) **3304.5.1.7 Separation distance.** When two magazines are located in the same building, they shall be separated by a distance of not less than 10 feet (3048 mm).

(b) **3304.5.2 Outdoor magazines.** All outdoor magazines other than Type 3 shall be located so as to comply with Table 3304.5.2(2) or Table 3304.5.2(3) *of this rule* as set forth in Tables 3301.8.1(1) *to* 3301.8.1(3) *of this rule*. Where a magazine or group of magazines, as described in *paragraph* (D)(5)(b)(ii)(3304.5.2.2) *of this rule*, contains different classes of explosive materials, and Division 1.1 materials are present, the required separations for the magazine or magazine group as a whole shall comply with Table 3304.5.2(2) *of this rule*.

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Table 3304.5.2(1)
American table of distances for storage of explosives as approved by the Institute of makers of explosives and revised June 1991[a]

Quantity of explosive materials[c]		Distances in feet							
		Inhabited buildings		Public highways with traffic volume less than 3,000 vehicles per day		Public highways with traffic volume greater than 3,000 vehicles per day and passenger railways		Separation of magazines[d]	
Pounds over	Pounds not over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
0	5	70	140	30	60	51	102	6	12
5	10	90	180	35	70	64	128	8	16
10	20	110	220	45	90	81	162	10	20
20	30	125	250	50	100	93	186	11	22
30	40	140	280	55	110	103	208	12	24
40	50	150	300	60	120	110	220	14	28
50	75	170	340	70	140	127	254	15	30
75	100	190	380	75	150	139	278	16	32
100	125	200	400	80	160	150	300	18	36
125	150	215	430	85	170	159	318	19	38
150	200	235	470	95	190	175	350	21	42
200	250	255	510	105	210	189	378	23	46
250	300	270	540	110	220	201	402	24	48
300	400	295	590	120	240	221	442	27	54
400	500	320	640	130	260	238	476	29	58
500	600	340	480	135	270	253	506	31	62
600	700	355	710	145	290	266	532	32	64
700	800	375	750	150	300	278	556	33	66
800	900	390	780	155	310	289	578	35	70
900	1,000	400	800	160	320	300	600	36	72
1,000	1,200	425	850	165	330	318	636	39	78
1,200	1,400	450	900	170	340	336	672	41	82
1,400	1,600	470	940	175	350	351	702	43	86
1,600	1,800	490	980	180	360	366	732	44	88
1,800	2,000	505	1,010	185	370	378	756	45	90
2,000	2,500	545	1,090	190	380	408	816	49	98
2,500	3,000	580	1,160	195	390	432	864	52	104
3,000	4,000	635	1,270	210	420	474	948	58	116
4,000	5,000	685	1,370	225	450	513	1,026	61	122
5,000	6,000	730	1,460	235	470	546	1,092	65	130
6,000	7,000	770	1,540	245	490	573	1,146	68	136
7,000	8,000	800	1,600	250	500	600	1,200	72	144
8,000	9,000	835	1,670	255	510	624	1,248	75	150
9,000	10,000	865	1,730	260	520	645	1,290	78	156
10,000	12,000	875	1,750	270	540	687	1,374	82	164
12,000	14,000	885	1,770	275	550	723	1,446	87	174
14,000	16,000	900	1,800	280	560	756	1,512	90	180
16,000	18,000	940	1,880	285	570	786	1,572	94	188
18,000	20,000	975	1,950	290	580	813	1,626	98	196
20,000	25,000	1,055	2,000	315	630	876	1,752	105	210
25,000	30,000	1,130	2,000	340	680	933	1,866	112	224
30,000	35,000	1,205	2,000	360	720	981	1,962	119	238
35,000	40,000	1,275	2,000	380	760	1,026	2,000	124	248
40,000	45,000	1,340	2,000	400	800	1,068	2,000	129	258
45,000	50,000	1,400	2,000	420	840	1,104	2,000	135	270

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Table 3304.5.2(1) Continued
American table of distances for storage of explosives as approved by the Institute of makers of explosives and revised June 1991[a]

Quantity of explosive materials[c]		Distances in feet							
		Inhabited buildings		Public highways with traffic volume less than 3,000 vehicles per day		Public highways with traffic volume greater than 3,000 vehicles per day and passenger railways		Separation of magazines[d]	
Pounds over	Pounds not over	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded	Barricaded	Unbarricaded
50,000	55,000	1,460	2,000	440	880	1,140	2,000	140	280
55,000	60,000	1,515	2,000	455	910	1,173	2,000	145	290
60,000	65,000	1,565	2,000	470	940	1,206	2,000	150	300
65,000	70,000	1,610	2,000	485	970	1,236	2,000	155	310
70,000	75,000	1,655	2,000	500	1,000	1,263	2,000	160	320
75,000	80,000	1,695	2,000	510	1,020	1,293	2,000	165	330
80,000	85,000	1,730	2,000	520	1,040	1,317	2,000	170	340
85,000	90,000	1,760	2,000	530	1,060	1,344	2,000	175	350
90,000	95,000	1,790	2,000	540	1,080	1,368	2,000	180	360
95,000	100,000	1,815	2,000	545	1,090	1,392	2,000	185	370
100,000	110,000	1,835	2,000	550	1,100	1,437	2,000	195	390
110,000	120,000	1,855	2,000	555	1.110	1,479	2,000	205	410
120,000	130,000	1,875	2,000	560	1,120	1,521	2,000	215	430
130,000	140,000	1,890	2,000	565	1,130	1,557	2,000	225	450
140,000	150,000	1,900	2,000	570	1,140	1,593	2,000	235	470
150,000	160,000	1,935	2,000	580	1,160	1,629	2,000	245	490
160,000	170,000	1,965	2,000	590	1,180	1,662	2,000	255	510
170,000	180,000	1,990	2,000	600	1,200	1,695	2,000	265	530
180,000	190,000	2,010	2,010	605	1,210	1,725	2,000	275	550
190,000	200,000	2,030	2,030	610	1,220	1,755	2,000	285	570
200,000	210,000	2,055	2,055	620	1,240	1,782	2,000	295	590
210,000	230,000	2,100	2,100	635	1,270	1,836	2,000	315	630
230,000	250,000	2,155	2,155	650	1,300	1,890	2,000	335	670
250,000	275,000	2,215	2,215	670	1,340	1,950	2,000	360	720
275,000	300,000[b]	2,275	2,275	690	1,380	2,000	2,000	385	770

For SI: 1 foot = 304.8 mm, 1 pound = 0.454 kg.

a. This table applies only to the manufacture and permanent storage of commercial explosive materials. It is not applicable to transportation of explosives or any handling or temporary storage necessary or incident thereto. It is not intended to apply to bombs, projectiles or other heavily encased explosives.

b. Storage in excess of 300,000 pounds of explosive materials in one magazine is not allowed.

c. Where a manufacturing building on an explosive materials plant site is designed to contain explosive materials, such building shall be located with respect to its proximity to inhabited buildings, public highways and passenger railways based on the maximum quantity of explosive materials permitted to be in the building at one time.

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d. Where two or more storage magazines are located on the same property, each magazine shall comply with the minimum distances specified from inhabited buildings, railways and highways, and, in addition, they should be separated from each other by not less than the distances shown for separation of magazines, except that the quantity of explosives in detonator magazines shall govern in regard to the spacing of said detonator magazines from magazines containing other explosive materials. Where any two or more magazines are separated from each other by less than the specified separation of magazine distances, then two or more such magazines, as a group, shall be considered as one magazine, and the total quantity of explosive materials stored in such group shall be treated as if stored in a single magazine located on the site of any magazine in the group and shall comply with the minimum distances specified from other magazines, inhabited buildings, railways and highways.

Table 3304.5.2(2)
Table of distances (Q-D) for buildings containing explosives-
Division 1.3 mass-fire hazard[a,b,c]

Quantity of Division 1.3 explosives (net explosives weight)		Distances in feet			
Pounds over	**Pounds not over**	**Inhabited building distance (IBD)**	**Distance to public traffic route (PTR)**	**Intermagazine distance (IMD)**	**Intraline distance (ILD) or Intraplant distance (IPD)**
0	1,000	75	75	50	50
1,000	5,000	115	115	75	75
5,000	10,000	150	150	100	100
10,000	20,000	190	190	125	125
20,000	30,000	215	215	145	145
30,000	40,000	235	235	155	155
40,000	50,000	250	250	165	165
50,000	60,000	260	260	175	175
60,000	70,000	270	270	185	185
70,000	80,000	280	280	190	190
80,000	90,000	295	295	195	195
90,000	100,000	300	300	200	200
100,000	200,000	375	375	250	250
200,000	300,000	450	450	300	300

For SI: 1 foot = 304.8 mm, 1 pound = 0.454 kg.

a. Black powder, when stored in magazines, is defined as low explosive by the Bureau of Alcohol, Tobacco and Firearms (BATF).

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b. For quantities less than 1,000 pounds, the required distances are those specified for 1,000 pounds. The use of lesser distances is allowed when supported by approved test data and/or analysis.

c. Linear interpolation of explosive quantities between table entries is allowed.

Table 3304.5.2(3)
Table of distances (Q-D) for buildings containing explosives-Division 1.4[c]

Quantity of Division 1.4 explosives (net explosives weight)		Distances in feet			
Pounds over	**Pounds not over**	**Inhabited building distance (IBD)**	**Distance to public traffic route (PTR)**	**Intermagazine distance[a,b] (IMD)**	**Intraline distance (ILD) or Intraplant distance[a] (IPD)**
50	Not limited	100	100	50	50

For SI: 1 foot = 304.8 mm, 1 pound = 0.454 kg.

a. A separation distance of 100 feet is required for buildings other than Type I or Type II construction as defined in the *building code listed in rule 1301:7-7-47 of the Administrative Code*.

b. For earth covered magazines, no specified separation is required.

1. Earth cover material used for magazines shall be relatively cohesive. Solid or wet clay and similar types of soil are too cohesive and shall not be used. Soil shall be free from unsanitary organic matter, trash, debris and stones heavier than 10 pounds or larger than 6 inches in diameter. Compaction and surface preparation shall be provided, as necessary, to maintain structural integrity and avoid erosion. Where cohesive material cannot be used, as a sandy soil, the earth cover over magazines shall be finished with a suitable material to ensure structural integrity.

2. The earth fill or earth cover between earth-covered magazines shall be either solid or sloped, in accordance with the requirements of other construction features, but a minimum of 2 feet of earth cover shall be maintained over the top of each magazine. To reduce erosion and facilitate maintenance of operations, the cover shall have a slope of 2 horizontal to 1 vertical.

c. Restricted to articles, including articles packaged for shipment, that are not regulated as an explosive under Bureau of Alcohol, Tobacco and Firearms regulations, or unpacked articles used in process operations that do not propagate a detonation or deflagration between articles. This table shall not apply to consumer fireworks, 1.4G.

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(i) **3304.5.2.1 Separation.** Where two or more storage magazines are located on the same property, each magazine shall comply with the minimum distances specified from inhabited buildings, public transportation routes and operating buildings. Magazines shall be separated from each other by not less than the intermagazine distances (IMD) shown for the separation of magazines.

(ii) **3304.5.2.2 Grouped magazines.** Where two or more magazines are separated from each other by less than the intermagazine distances (IMD), such magazines as a group shall be considered as one magazine and the total quantity of explosive materials stored in the group shall be treated as if stored in a single magazine. The location of the group of magazines shall comply with the intermagazine distances (IMD) specified from other magazines or magazine groups, inhabited buildings (IBD), public transportation routes (PTR) and operating buildings (ILD or IPD) as required.

(c) **3304.5.3 Special requirements for Type 3 magazines.** Type 3 magazines shall comply with *paragraphs* (D)(5)(c)(i)(3304.5.3.1) *to* (D)(5)(c)(iii)(3304.5.3.3) *of this rule*.

(i) **3304.5.3.1 Location.** Wherever practicable, Type 3 magazines shall be located away from neighboring inhabited buildings, railways, highways and other magazines in accordance with Table 3304.5.2(2) or 3304.5.2(3) o *of this rule* as applicable.

(ii) **3304.5.3.2 Supervision.** Type 3 magazines shall be attended when explosive materials are stored within. Explosive materials shall be removed to appropriate storage magazines for unattended storage at the end of the workday.

(iii) **3304.5.3.3 Use.** Not more than two Type 3 magazines shall be located at the same blasting site. Where two Type 3 magazines are located at the same blasting site, one magazine shall be used solely for the storage of detonators.

(6) **3304.6 Construction.** Magazines shall be constructed in accordance with *paragraphs* (D)(6)(a)(3304.6.1) *to* (D)(6)(e)(ii)(3304.6.5.2) *of this rule*.

(a) **3304.6.1 Drainage.** The ground around a magazine shall be graded so that water drains away from the magazine.

(b) **3304.6.2 Heating.** Magazines requiring heat shall be heated as prescribed in NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code* by either hot water radiant heating within the magazine or by indirect warm air heating.

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(c) **3304.6.3 Lighting.** When lighting is necessary within a magazine, electric safety flashlights or electric safety lanterns shall be used, except as provided in NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(d) **3304.6.4 Nonsparking materials.** In other than Type 5 magazines, there shall be no exposed ferrous metal on the interior of a magazine containing packages of explosives.

(e) **3304.6.5 Signs and placards.** Property upon which Type 1 magazines and outdoor magazines of Types 2, 4 and 5 are located shall be posted with signs stating: "EXPLOSIVES-KEEP OFF." These signs shall be of contrasting colors with a minimum letter height of 3 inches (76 mm) with a minimum brush stroke of ½ inch (12.7 mm). The signs shall be located to minimize the possibility of a bullet shot at the sign hitting the magazine.

(i) **3304.6.5.1 Access road signs.** At the entrance to explosive material manufacturing and storage sites, all access roads shall be posted with the following warning sign or other approved sign:

"DANGER!
NEVER FIGHT EXPLOSIVE FIRES.
EXPLOSIVES ARE STORED ON THIS SITE
CALL _____"

The sign shall be weather resistant with a reflective surface and have lettering at least 2 inches (51 mm) high.

(ii) **3304.6.5.2 Placards.** Type 5 magazines containing Division 1.5 blasting agents shall be prominently placarded as required during transportation by DOTn 49 CFR, Part 172 and DOTy 27 CFR, Part 55 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(7) **3304.7 Operation.** Magazines shall be operated in accordance with *paragraphs* (D)(7)(a)(3304.7.1) *to* (D)(7)(i)(3304.7.9) *of this rule*.

(a) **3304.7.1 Security.** Magazines shall be kept locked in the manner prescribed in NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code* at all times except during placement or removal of explosives or inspection.

(b) **3304.7.2 Open flames and lights.** Smoking, matches, flame-producing devices, open flames, firearms and firearms cartridges shall not be allowed inside of or within 50 feet (15 240 mm) of magazines.

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(c) **3304.7.3 Brush.** The area located around a magazine shall be kept clear of brush, dried grass, leaves, trash, debris and similar combustible materials for a distance of 25 feet (7620 mm).

(d) **3304.7.4 Combustible storage.** Combustible materials shall not be stored within 50 feet (15 240 mm) of magazines.

(e) **3304.7.5 Unpacking and repacking explosive materials.** Containers of explosive materials, except fiberboard containers, and packages of damaged or deteriorated explosive materials or fireworks shall not be unpacked or repacked inside or within 50 feet (15 240 mm) of a magazine or in close proximity to other explosive materials.

(i) **3304.7.5.1 Storage of opened packages.** Packages of explosive materials that have been opened shall be closed before being placed in a magazine.

(ii) **3304.7.5.2 Nonsparking tools.** Tools used for the opening and closing of packages of explosive materials, other than metal slitters for opening paper, plastic or fiberboard containers, shall be made of nonsparking materials.

(iii) **3304.7.5.3 Disposal of packaging.** Empty containers and paper and fiber packaging materials that previously contained explosive materials shall be disposed of or reused in an approved manner.

(f) **3304.7.6 Tools and equipment.** Metal tools, other than nonferrous transfer conveyors and ferrous metal conveyor stands protected by a coat of paint, shall not be stored in a magazine containing explosive materials or detonators.

(g) **3304.7.7 Contents.** Magazines shall be used exclusively for the storage of explosive materials, blasting materials and blasting accessories.

(h) **3304.7.8 Compatibility.** Corresponding grades and brands of explosive materials shall be stored together and in such a manner that the grade and brand marks are visible. Stocks shall be stored so as to be easily counted and checked. Packages of explosive materials shall be stacked in a stable manner not exceeding 8 feet (2438 mm) in height.

(i) **3304.7.9 Stock rotation.** When explosive material is removed from a magazine for use, the oldest usable stocks shall be removed first.

(8) **3304.8 Maintenance.** Maintenance of magazines shall comply with *paragraphs* (D)(8)(a)(3304.8.1) *to* (D)(8)(c)(3304.8.3) *of this rule*.

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(a) **3304.8.1 Housekeeping.** Magazine floors shall be regularly swept and be kept clean, dry and free of grit, paper, empty packages and rubbish. Brooms and other cleaning utensils shall not have any spark-producing metal parts. Sweepings from magazine floors shall be disposed of in accordance with the manufacturers' approved instructions.

(b) **3304.8.2 Repairs.** Explosive materials shall be removed from the magazine before making repairs to the interior of a magazine. Explosive materials shall be removed from the magazine before making repairs to the exterior of the magazine where there is a possibility of causing a fire. Explosive materials removed from a magazine under repair shall either be placed in another magazine or placed a safe distance from the magazine, where they shall be properly guarded and protected until repairs have been completed. Upon completion of repairs, the explosive materials shall be promptly returned to the magazine. Floors shall be cleaned before and after repairs.

(c) **3304.8.3 Floors.** Magazine floors stained with liquid shall be dealt with according to instructions obtained from the manufacturer of the explosive material stored in the magazine.

(9) **3304.9 Inspection.** Magazines containing explosive materials shall be opened and inspected *by the permit holder* at maximum *intervals of seven* days. The inspection shall determine whether there has been an unauthorized or attempted entry into a magazine or an unauthorized removal of a magazine or its contents. *The permit holder shall document said inspections including the date of inspection, name of person conducting inspection and a verification of the inventory. The permit holder shall maintain such records for a minimum of one year and provide such documentation to the state fire marshal upon request.*

(a) ***3304.9.1*** *If in the state fire marshal's discretion, the state fire marshal determines that conditions affecting the security of explosives exist that require more frequent inventory inspections, the permit holder shall conduct such inspections on a daily basis unless otherwise notified by the state fire marshal for the duration of the prevailing conditions. Such conditions would exist when the United States department of homeland security threat advisory system, or a similar system of the United States government or the state of Ohio, reaches a high or severe level or the governor of Ohio declares a state of emergency pursuant to section 5502.21 of the Revised Code or the governor otherwise activates the Ohio militia in accordance with Ohio Constitution Article 9, Section 4.*

(10) **3304.10 Disposal of explosive materials.** Explosive materials shall be disposed of in accordance with *paragraphs* (D)(10)(a)(3304.10.1) *to* (D)(10)(g)(3304.10.7) *of this rule*.

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(a) **3304.10.1 Notification.** The fire code official shall be notified immediately when deteriorated or leaking explosive materials are determined to be dangerous or unstable and in need of disposal.

(b) **3304.10.2 Deteriorated materials.** When an explosive material has deteriorated to an extent that it is in an unstable or dangerous condition, or when a liquid has leaked from an explosive material, the person in possession of such material shall immediately contact the material's manufacturer to obtain disposal and handling instructions.

(c) **3304.10.3 Qualified person.** The work of destroying explosive materials shall be directed by persons experienced in the destruction of explosive materials.

(d) **3304.10.4 Storage of misfires.** Explosive materials and fireworks recovered from blasting or display misfires shall be placed in a magazine until an experienced person has determined the proper method of disposal.

(e) **3304.10.5 Disposal sites.** Sites for the destruction of explosive materials and fireworks shall be approved and located at the maximum practicable safe distance from inhabited buildings, public highways, operating buildings and all other exposures to ensure keeping air blast and ground vibration to a minimum. The location of disposal sites shall be no closer to magazines, inhabited buildings, railways, highways and other rights-of-way than is allowed by Tables 3304.5.2(1), 3304.5.2(2) and 3304.5.2(3) *of this rule*. When possible, barricades shall be utilized between the destruction site and inhabited buildings. Areas where explosives are detonated or burned shall be posted with adequate warning signs.

(f) **3304.10.6 Reuse of site.** Unless an approved burning site has been thoroughly saturated with water and has passed a safety inspection, 48 hours shall elapse between the completion of a burn and the placement of scrap explosive materials for a subsequent burn.

(g) **3304.10.7 Personnel safeguards.** Once an explosive burn operation has been started, personnel shall relocate to a safe location where adequate protection from air blast and flying debris is provided. Personnel shall not return to the burn area until the person in charge has inspected the burn site and determined that it is safe for personnel to return.

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(E) **Section 3305 Manufacture, assembly and testing of explosives, explosive materials and fireworks**

(1) **3305.1 General.** The manufacture, assembly and testing of explosives, ammunition, blasting agents and fireworks shall comply with the requirements of this *paragraph* and NFPA 495 or NFPA 1124 *as listed in rule 1301:7-7-47 of the Administrative Code*.

Exceptions:

1. The hand loading of small arms ammunition prepared for personal use and not offered for resale.

2. The mixing and loading of blasting agents at blasting sites in accordance with NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

3. The use of binary explosives or plosophoric materials in blasting or pyrotechnic special effects applications in accordance with NFPA 495 or NFPA 1126 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(2) **3305.2 Emergency planning and preparedness.** Emergency plans, emergency drills, employee training and hazard communication shall conform to the provisions of this *paragraph* and *paragraphs* (D)(404), (E)(405), (F)(406) and (G)(407) *of rule 1301:7-7-04 of the Administrative Code*.

(a) **3305.2.1 Hazardous Materials Management Plans and Inventory Statements required.** Detailed hazardous materials management plans (HMMP) and hazardous materials inventory statements (HMIS) complying with the requirements of *paragraph* (G)(407) *of rule 1301:7-7-04 of the Administrative Code* shall be prepared and submitted to the local emergency planning committee, the fire code official, and the local fire department.

(b) **3305.2.2 Maintenance of plans.** A copy of the required HMMP and HMIS shall be maintained on site and furnished to the fire code official on request.

(c) **3305.2.3 Employee training.** Workers who handle explosives or explosive charges or dispose of explosives shall be trained in the hazards of the materials and processes in which they are to be engaged and with the safety rules governing such materials and processes.

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(d) **3305.2.4 Emergency procedures.** Approved emergency procedures shall be formulated for each plant which will include personal instruction in any emergency that may be anticipated. All personnel shall be made aware of an emergency warning signal.

(3) **3305.3 Intraplant separation of operating buildings.** Explosives manufacturing buildings and fireworks manufacturing buildings, including those where explosive charges are assembled, manufactured, prepared or loaded utilizing Division 1.1, 1.2, 1.3, 1.4 or 1.5 explosives, shall be separated from all other buildings, including magazines, within the confines of the manufacturing plant at a distance not less than those shown in Table 3305.3 or 3304.5.2(3) *of this rule*, as appropriate.

Exception: Fireworks manufacturing buildings separated in accordance with NFPA 1124 *as listed in rule 1301:7-7-47 of the Administrative Code*.

The quantity of explosives in an operating building shall be the net weight of all the explosives contained therein. Distances shall be based on the hazard division requiring the greatest separation, unless the aggregate explosive weight is divided by approved walls or shields designed for that purpose. When dividing a quantity of explosives into smaller stacks, a suitable barrier or adequate separation distance shall be provided to prevent propagation from one stack to another.

When distance is used as the sole means of separation within a building, such distance shall be established by testing. Testing shall demonstrate that propagation between stacks will not result. Barriers provided to protect against explosive effects shall be designed and installed in accordance with approved standards.

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Table 3305.3
Minimum intraline (intraplant) separation distances (ILD or IPD) between barricaded operating buildings containing explosives-Division 1.1, 1.2 or 1.5-mass explosion hazard[a]

Net explosive weight			Net explosive weight		
Pounds over	**Pounds not over**	**Intraline distance (ILD) or intraplant distance (IPD) (feet)**	**Pounds over**	**Pounds not over**	**Intraline distance (ILD) or intraplant distance (IPD) (feet)**
0	50	30	20,000	25,000	265
50	100	40	25,000	30,000	280
100	200	50	30,000	35,000	295
200	300	60	35,000	40,000	310
300	400	65	40,000	45,000	320
400	500	70	45,000	50,000	330
500	600	75	50,000	55,000	340
600	700	80	55,000	60,000	350
700	800	85	60,000	65,000	360
800	900	90	65,000	70,000	370
900	1,000	95	70,000	75,000	385
1,000	1,500	105	75,000	80,000	390
1,500	2,000	115	80,000	85,000	395
2,000	3,000	130	85,000	90,000	400
3,000	4,000	140	90,000	95,000	410
4,000	5,000	150	95,000	100,000	415
5,000	6,000	160	100,000	125,000	450
6,000	7,000	170	125,000	150,000	475
7,000	8,000	180	150,000	175,000	500
8,000	9,000	190	175,000	200,000	525
9,000	10,000	200	200,000	225,000	550
10,000	15,000	225	225,000	250,000	575
15,000	20,000	245	250,000	275,000	600
-------	-------	-------	275,000	300,000	635

For SI: 1 foot = 304.8 mm, 1 pound = 0.454 kg.

a. Where a building or magazine containing explosives is not barricaded, the intraline distances shown in this table shall be doubled.

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(4) **3305.4 Separation of manufacturing operating buildings from inhabited buildings, public traffic routes and magazines.** When an operating building on an explosive materials plant site is designed to contain explosive materials, such a building shall be located away from inhabited buildings, public traffic routes and magazines in accordance with Table 3304.5.2(2) or 3304.5.2(3) *of this rule* as appropriate, based on the maximum quantity of explosive materials permitted to be in the building at one time (see *paragraph* (A)(8)(3301.8) *of this rule*).

Exception: Fireworks manufacturing buildings constructed and operated in accordance with NFPA 1124 *as listed in rule 1301:7-7-47 of the Administrative Code.*

(a) **3305.4.1 Determination of net explosive weight for operating buildings.** In addition to the requirements of *paragraph* (A)(8)(3301.8) *of this rule* to determine the net explosive weight for materials stored or used in operating buildings, quantities of explosive materials stored in magazines located at distances less than intraline distances from the operating building shall be added to the contents of the operating building to determine the net explosive weight for the operating building.

(i) **3305.4.1.1 Indoor magazines.** The storage of explosive materials located in indoor magazines in operating buildings shall be limited to a net explosive weight not to exceed 50 pounds (23 kg).

(ii) **3305.4.1.2 Outdoor magazines with a net explosive weight less than 50 pounds.** The storage of explosive materials in outdoor magazines located at less than intraline distances from operating buildings shall be limited to a net explosive weight not to exceed 50 pounds (23 kg).

(iii) **3305.4.1.3 Outdoor magazines with a net explosive weight greater than 50 pounds.** The storage of explosive materials in outdoor magazines in quantities exceeding 50 pounds (23 kg) net explosive weight shall be limited to storage in outdoor magazines located not less than intraline distances from the operating building in accordance with *paragraph* (D)(5)(b)(3304.5.2) *of this rule*.

(iv) **3305.4.1.4 Net explosive weight of materials stored in combination indoor and outdoor magazines.** The aggregate quantity of explosive materials stored in any combination of indoor magazines or outdoor magazines located at less than the intraline distances from an operating building shall not exceed 50 pounds (23 kg).

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(5) **3305.5 Buildings and equipment.** Buildings or rooms that exceed the maximum allowable quantity per control area of explosive materials shall be operated in accordance with this *paragraph* and constructed in accordance with the requirements of the *building code as listed in rule 1301:7-7-47 of the Administrative Code* for Group H occupancies.

Exception: Fireworks manufacturing buildings constructed and operated in accordance with NFPA 1124 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(a) **3305.5.1 Explosives dust.** Explosives dust shall not be exhausted to the atmosphere.

(i) **3305.5.1.1 Wet collector.** When collecting explosives dust, a wet collector system shall be used. Wetting agents shall be compatible with the explosives. Collector systems shall be interlocked with process power supplies so that the process cannot continue without the collector systems also operating.

(ii) **3305.5.1.2 Waste disposal and maintenance.** Explosives dust shall be removed from the collection chamber as often as necessary to prevent overloading. The entire system shall be cleaned at a frequency that will eliminate hazardous concentrations of explosives dust in pipes, tubing and ducts.

(b) **3305.5.2 Exhaust fans.** Squirrel cage blowers shall not be used for exhausting hazardous fumes, vapors or gases. Only nonferrous fan blades shall be used for fans located within the ductwork and through which hazardous materials are exhausted. Motors shall be located outside the duct.

(c) **3305.5.3 Work stations.** Work stations shall be separated by distance, barrier or other approved alternatives so that fire in one station will not ignite material in another work station. Where necessary, the operator shall be protected by a personnel shield located between the operator and the explosive device or explosive material being processed. This shield and its support shall be capable of withstanding a blast from the maximum amount of explosives allowed behind it.

(6) **3305.6 Operations.** Operations involving explosives shall comply with *paragraphs* (E)(6)(a)(3305.6.1) *to* (E)(6)(j)(3305.6.10) *of this rule*.

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(a) **3305.6.1 Isolation of operations.** When the type of material and processing warrants, mechanical operations involving explosives in excess of 1 pound (0.454 kg) shall be carried on at isolated stations or at intraplant distances, and machinery shall be controlled from remote locations behind barricades or at separations so that workers will be at a safe distance while machinery is operating.

(b) **3305.6.2 Static controls.** The work area where the screening, grinding, blending and other processing of static-sensitive explosives or pyrotechnic materials is done shall be provided with approved static controls.

(c) **3305.6.3 Approved containers.** Bulk explosives shall be kept in approved, nonsparking containers when not being used or processed. Explosives shall not be stored or transported in open containers.

(d) **3305.6.4 Quantity limits.** The quantity of explosives at any particular work station shall be limited to that posted on the load limit signs for the individual work station. The total quantity of explosives for multiple workstations shall not exceed that established by the intraplant distances in Table 3305.3 or 3304.5.2(3) *of this rule*, as appropriate.

(i) **3305.6.4.1 Magazines.** Magazines used for storage in processing areas shall be in accordance with the requirements of *paragraph* (D)(5)(a)(3304.5.1) *of this rule*. All explosive materials shall be removed to appropriate storage magazines for unattended storage at the end of the work day. The contents of indoor magazines shall be added to the quantity of explosives contained at individual workstations and the total quantity of material stored, processed or used shall be utilized to establish the intraplant separation distances indicated by Table 3305.3 or 3304.5.2(3) *of this rule*, as appropriate.

(e) **3305.6.5 Waste disposal.** Approved receptacles with covers shall be provided for each location for disposing of waste material and debris. These waste receptacles shall be emptied and cleaned as often as necessary but not less than once each day or at the end of each shift.

(f) **3305.6.6 Safety rules.** General safety rules and operating instructions governing the particular operation or process conducted at that location shall be available at each location.

(g) **3305.6.7 Personnel limits.** The number of occupants in each process building and in each magazine shall not exceed the number necessary for proper conduct of production operations.

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(h) **3305.6.8 Pyrotechnic and explosive composition quantity limits.** Not more than 500 pounds (227 kg) of pyrotechnic or explosive composition, including not more than 10 pounds (5 kg) of salute powder shall be allowed at one time in any process building or area. All compositions not in current use shall be kept in covered nonferrous containers.

Exception: Composition that has been loaded or pressed into tubes or other containers as consumer fireworks.

(i) **3305.6.9 Posting limits.** The maximum number of occupants and maximum weight of pyrotechnic and explosive composition permitted in each process building shall be posted in a conspicuous location in each process building or magazine.

(j) **3305.6.10 Heat sources.** Fireworks, explosives or explosive charges in explosive materials manufacturing, assembly or testing shall not be stored near any source of heat.

Exception: Approved drying or curing operations.

(7) **3305.7 Maintenance.** Maintenance and repair of explosives manufacturing facilities and areas shall comply with *paragraph* (D)(8)(3304.8) *of this rule*.

(8) **3305.8 Explosive materials testing sites.** Detonation of explosive materials or ignition of fireworks for testing purposes shall be done only in isolated areas at sites where distance, protection from missiles, shrapnel or flyrock, and other safeguards provides protection against injury to personnel or damage to property.

(a) **3305.8.1 Protective clothing and equipment.** Protective clothing and equipment shall be provided to protect persons engaged in the testing, ignition or detonation of explosive materials.

(b) **3305.8.2 Site security.** When tests are being conducted or explosives are being detonated, only authorized persons shall be present. Areas where explosives are regularly or frequently detonated or burned shall be approved and posted with adequate warning signs. Warning devices shall be activated before burning or detonating explosives to alert persons approaching from any direction that they are approaching a danger zone.

(9) **3305.9 Waste disposal.** Disposal of explosive materials waste from manufacturing, assembly or testing operations shall be in accordance with *paragraph* (D)(10)(3304.10) *of this rule*.

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(F) **Section 3306 Small arms ammunition**

(1) **3306.1 General.** Indoor storage and display of black powder, smokeless propellants and small arms ammunition shall comply with this *paragraph* and NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(2) **3306.2 Prohibited storage.** Small arms ammunition shall not be stored together with Division 1.1, Division 1.2 or Division 1.3 explosives unless the storage facility is suitable for the storage of explosive materials.

(3) **3306.3 Packages.** Smokeless propellants shall be stored in approved shipping containers conforming to DOTn 49 CFR, Part 173 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(a) **3306.3.1 Repackaging.** The bulk repackaging of smokeless propellants, black powder and small arms primers shall not be performed in retail establishments.

(b) **3306.3.2 Damaged packages.** Damaged containers shall not be repackaged.

Exception: Approved repackaging of damaged containers of smokeless propellant into containers of the same type and size as the original container.

(4) **3306.4 Storage in Group R occupancies.** The storage of small arms ammunition in Group R occupancies shall comply with *paragraphs* (F)(4)(a)(3306.4.1) and (F)(4)(b)(3306.4.2) *of this rule*.

(a) **3306.4.1 Black powder and smokeless propellants.** Propellants for personal use in quantities not exceeding 20 pounds (9 kg) of black powder or 20 pounds (9 kg) of smokeless powder shall be stored in original containers in occupancies limited to Group R-3. Smokeless powder in quantities exceeding 20 pounds (9 kg) but not exceeding 50 pounds (23 kg) kept in a wooden box or cabinet having walls of at least 1 inch (25 mm) nominal thickness shall be allowed to be stored in occupancies limited to Group R-3. Quantities exceeding these amounts shall not be stored in any Group R occupancy.

(b) **3306.4.2 Small arms primers.** No more than 10,000 small arms primers shall be stored in occupancies limited to Group R-3.

(5) **3306.5 Display and storage in Group M occupancies.** The display and storage of small arms ammunition in Group M occupancies shall comply with this *paragraph*.

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(a) **3306.5.1 Display.** Display of small arms ammunition in Group M occupancies shall comply with *paragraphs* (F)(5)(a)(i)(3306.5.1.1) *to* (F)(5)(a)(iii)(3306.5.1.3) *of this rule*.

(i) **3306.5.1.1 Smokeless propellant.** No more than 20 pounds (9 kg) of smokeless propellants, each in containers of 1 pound (0.454 kg) or less capacity, shall be displayed in Group M occupancies.

(ii) **3306.5.1.2 Black powder.** No more than 1 pound (0.454 kg) of black powder shall be displayed in Group M occupancies.

(iii) **3306.5.1.3 Small arms primers.** No more than 10,000 small arms primers shall be displayed in Group M occupancies.

(b) **3306.5.2 Storage.** Storage of small arms ammunition shall comply with *paragraphs* (F)(5)(b)(i)(3306.5.2.1) *to* (F)(5)(b)(iii)(3306.5.2.3) *of this rule*.

(i) **3306.5.2.1 Smokeless propellant.** Commercial stocks of smokeless propellants shall be stored as follows:

(*a*) Quantities exceeding 20 pounds (9 kg), but not exceeding 100 pounds (45 kg) shall be stored in portable wooden boxes having walls of at least 1 inch (25 mm) nominal thickness.

(*b*) Quantities exceeding 100 pounds (45 kg), but not exceeding 800 pounds (363 kg), shall be stored in nonportable storage cabinets having walls at least 1 inch (25 mm) nominal thickness. Not more than 400 pounds (182 kg) shall be stored in any one cabinet, and cabinets shall be separated by a distance of at least 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of at least 1 hour.

(*c*) Storage of quantities exceeding 800 pounds (363 kg), but not exceeding 5,000 pounds (2270 kg) in a building shall comply with all of the following:

(*i*) The warehouse or storage room is unaccessible to unauthorized personnel.

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(*ii*) Smokeless propellant shall be stored in nonportable storage cabinets having wood walls at least 1 inch (25 mm) nominal thickness and having shelves with no more than 3 feet (914 mm) of separation between shelves.

(*iii*) No more than 400 pounds (182 kg) is stored in any one cabinet.

(*iv*) Cabinets shall be located against walls of the storage room or warehouse with at least 40 feet (12 192 mm) between cabinets.

(*v*) The minimum required separation between cabinets shall be 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades must extend a minimum of 10 feet (3048 mm) outward, be firmly attached to the wall and be constructed of steel not less than ¼ inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick or concrete block.

(*vi*) Smokeless propellant shall be separated from materials classified as combustible liquids, flammable liquids, flammable solids or oxidizing materials by a distance of 25 feet (7620 mm) or by a fire partition having a fire-resistance rating of 1 hour.

(*vii*) The building shall be equipped throughout with an automatic sprinkler system installed in accordance with *paragraph* (C)(3)(a)(i)(903.3.1.1) *of rule 1301:7-7-09 of the Administrative Code*.

(*d*) Smokeless propellants not stored according to *paragraph* (F)(5)(b)(i)(*a*), (F)(5)(b)(i)(*b*), or (F)(5)(b)(i)(*c*) *of this rule* shall be stored in a Type 2 or 4 magazine in accordance with *paragraph* (D)(3304) *of this rule* and NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

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(ii) **3306.5.2.2 Black powder.** Commercial stocks of black powder in quantities less than 50 pounds (23 kg) shall be allowed to be stored in Type 2 or 4 indoor or outdoor magazines. Quantities greater than 50 pounds (23 kg) shall be stored in outdoor Type 2 or 4 magazines. When black powder and smokeless propellants are stored together in the same magazine, the total quantity shall not exceed that permitted for black powder.

(iii) **3306.5.2.3 Small arms primers.** Commercial stocks of small arms primers shall be stored as follows:

(*a*) Quantities not to exceed 750,000 small arms primers stored in a building shall be arranged such that not more than 100,000 small arms primers are stored in any one pile and piles are at least 15 feet (4572 mm) apart.

(*b*) Quantities exceeding 750,000 small arms primers stored in a building shall comply with all of the following:

(*i*) The warehouse or storage building shall not be accessible to unauthorized personnel.

(*ii*) Small arms primers shall be stored in cabinets. No more than 200,000 small arms primers shall be stored in any one cabinet.

(*iii*) Shelves in cabinets shall have vertical separation of at least 2 feet (610 mm).

(*iv*) Cabinets shall be located against walls of the warehouse or storage room with at least 40 feet (12 192 mm) between cabinets. The minimum required separation between cabinets shall be allowed to be reduced to 20 feet (6096 mm) provided that barricades twice the height of the cabinets are attached to the wall, midway between each cabinet. The barricades shall be firmly attached to the wall, and shall be constructed of steel not less than ¼ inch thick (6.4 mm), 2-inch (51 mm) nominal thickness wood, brick or concrete block.

(*v*) Small arms primers shall be separated from materials classified as combustible liquids,

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flammable liquids, flammable solids or oxidizing materials by a distance of 25 feet (7620 mm) by a fire partition having a fire-resistance rating of 1 hour.

(*vi*)The building shall be protected throughout with an automatic sprinkler system installed in accordance with *paragraph* (C)(3)(a)(i)(903.3.1.1) *of rule 1301:7-7-09 of the Administrative Code*.

(*c*) Small arms primers not stored in accordance with *paragraph* (F)(5)(b)(iii)(*a*) or (F)(5)(b)(iii)(*b*) *of this rule* shall be stored in a magazine meeting the requirements of *paragraph* (D)(3304) *of this rule* and NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(G) **Section 3307 Blasting**

(1) **3307.1 General.** Blasting operations shall be conducted only by approved, competent operators familiar with the required safety precautions and the hazards involved and in accordance with the provisions of NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(2) **3307.2 Manufacturer's instructions.** Blasting operations shall be performed in accordance with the instructions of the manufacturer of the explosive materials being used.

(3) **3307.3 Blasting in congested areas.** When blasting is done in a congested area or in close proximity to a structure, railway or highway, or any other installation, precautions shall be taken to minimize earth vibrations and air blast effects. Blasting mats or other protective means shall be used to prevent fragments from being thrown.

(4) **3307.4 Restricted hours.** Surface-blasting operations shall only be conducted during daylight hours between sunrise and sunset. Other blasting shall be performed during daylight hours unless otherwise approved by the fire code official.

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(5) **3307.5 Utility notification.** Whenever blasting is being conducted in the vicinity of utility lines or rights-of-way, the blaster shall notify the appropriate representatives of the utilities at least 24 hours in advance of blasting, specifying the location and intended time of such blasting. Verbal notices shall be confirmed with written notice.

Exception: In an emergency situation, the time limit shall not apply when approved.

(6) **3307.6 Electric detonator precautions.** Precautions shall be taken to prevent accidental discharge of electric detonators from currents induced by radar and radio transmitters, lightning, adjacent power lines, dust and snow storms, or other sources of extraneous electricity.

(7) **3307.7 Nonelectric detonator precautions.** Precautions shall be taken to prevent accidental initiation of nonelectric detonators from stray currents induced by lightning or static electricity.

(8) **3307.8 Blasting area security.** During the time that holes are being loaded or are loaded with explosive materials, blasting agents or detonators, only authorized persons engaged in drilling and loading operations or otherwise authorized to enter the site shall be allowed at the blast site. The blast site shall be guarded or barricaded and posted. Blast site security shall be maintained until after the post-blast inspection has been completed.

(9) **3307.9 Drill holes.** Holes drilled for the loading of explosive charges shall be made and loaded in accordance with NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(10) **3307.10 Removal of excess explosive materials.** After loading for a blast is completed and before firing, excess explosive materials shall be removed from the area and returned to the proper storage facilities.

(11) **3307.11 Initiation means.** The initiation of blasts shall be by means conforming to the provisions of NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(12) **3307.12 Connections.** The blaster shall supervise the connecting of the blastholes and the connection of the loadline to the power source or initiation point. Connections shall be made progressively from the blasthole back to the initiation point.

Blasting lead lines shall remain shunted (shorted) and shall not be connected to the blasting machine or other source of current until the blast is to be fired.

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(13) **3307.13 Firing control.** No blast shall be fired until the blaster has made certain that all surplus explosive materials are in a safe place in accordance with *paragraph* (G)(10)(3307.10) *of this rule*, all persons and equipment are at a safe distance or under sufficient cover and that an adequate warning signal has been given.

(14) **3307.14 Post-blast procedures.** After the blast, the following procedures shall be observed.

(a) No person shall return to the blast area until allowed to do so by the blaster in charge.

(b) The blaster shall allow sufficient time for smoke and fumes to dissipate and for dust to settle before returning to or approaching the blast area.

(c) The blaster shall inspect the entire blast site for misfires before allowing other personnel to return to the blast area.

(15) **3307.15 Misfires.** Where a misfire is suspected, all initiating circuits shall be traced and a search made for unexploded charges. Where a misfire is found, the blaster shall provide proper safeguards for excluding all personnel from the blast area. Misfires shall be reported to the blasting supervisor immediately. Misfires shall be handled under the direction of the person in charge of the blasting operation in accordance with NFPA 495 *as listed in rule 1301:7-7-47 of the Administrative Code*.

(H) **Section 3308 Fireworks *exhibition***

(1) **3308.1 *Permit.*** *This paragraph applies to any exhibition of 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0432), 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432). No 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335) or 1.4G fireworks (UN0336) may be displayed or otherwise discharged indoors.*

A permit shall be obtained from the local fire official and law enforcement officer of the jurisdiction for any outdoor exhibition of 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0432, 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432) fireworks and any indoor exhibition of 1.4G special effects fireworks (UN0432), 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432) pursuant to the applicable provisions of section 3743.54 of the Revised Code. The permit shall bear the signatures of the fire official and law enforcement official having jurisdiction and the licensed exhibitor applying to conduct the fireworks exhibition. The permit shall identify the certified fire safety

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inspector, fire chief, or fire prevention officer who will be present before, during, and after the fireworks exhibition, where appropriate.

(a) ***3308.1.1 Permit form.*** *The form for exhibition permit as prescribed by the state fire marshal shall be legibly and fully completed by the licensed exhibitor to clearly indicate the circumstances of the public fireworks exhibition the exhibitor wishes to conduct.*

(b) ***3308.1.2 Approval.*** *Before any fireworks exhibition permit issued under this rule is considered to be a valid permit to allow the licensed exhibitor to acquire fireworks and conduct a fireworks exhibition, the permit must be signed and dated by the local officials having jurisdiction.*

(2) **3308.2 Permit *approval.*** *A fireworks exhibition permit should be obtained from such local officials at least five days in advance of the fireworks exhibition. Failure to obtain the exhibition permit prior to five days in advance of the fireworks exhibition may result in denial of the approval required to conduct the fireworks exhibition.*

(3) **3308.3 *Fee.*** *When the legislative authority of the political subdivision has prescribed a fee for the issuance of a permit for a fireworks exhibition, the fire official and law enforcement officer shall not issue such permit until the exhibitor pays the requisite fee and meets the financial responsibility requirements of paragraph* (A)(2)(d)(ii)(3301.2.4.2) *of this rule.*

(4) **3308.4 *Inspection of site.*** *The fire chief or fire prevention officer of the authority having jurisdiction shall inspect the premises where the fireworks exhibition is to take place and determine whether the fireworks exhibition is in compliance with Chapter 3743. of the Revised Code and NFPA 1123 (Chapter 5, site selection) and the applicable portions of NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code. The radius of separation distance between all mortars, racks or other points of fireworks discharge and any members of the public shall be measured, regardless of obstruction or other topographical features, as a direct point to point line of sight measurement. All such separation distances shall be measured from the same horizontal plane of elevation between the fireworks discharge point and members of the public. No members of the public shall, regardless of their relative difference in elevation from the horizontal plane of measurement, be permitted within the required radius of separation. For the purposes of this paragraph, the radius of separation extends infinitely above and below the horizontal plane of measurement. The inspection shall be conducted prior to the issuance of the permit for a fireworks exhibition.*

(5) **3308.5 *Inspection checklist.*** *At the time of the required site inspection, the fire chief or fire prevention officer, shall complete the required detailed inspection checklist as prescribed by the state fire marshal and set forth in the appendix to this rule. If the exhibition is to be inspected is an outdoor exhibition, the fire chief*

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or fire prevention officer shall complete the detailed inspection checklist, in consultation with a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district or with a designee of such a police chief or other similar chief law enforcement officer. No exhibition of fireworks shall occur in this state until the licensed exhibitor possesses a copy of the appropriate checklist signed by the fire official and the licensed exhibitor.

(6) **3308.6** ***Exhibitor's license requirement.*** *No permit for a fireworks exhibition shall be granted unless the applicant is in possession of a valid license to exhibit fireworks issued by the state fire marshal. Each applicant for a permit shall show the applicant's license as an exhibitor of fireworks to the fire chief or fire prevention officer and, upon request to the police chief or other similar law enforcement officer.*

(7) **3308.7** *Fireworks exhibition permit application detailed information required.*

(a) ***3308.7.1*** *When an Ohio licensed exhibitor applies for the permit required by paragraph* (H)(1)(3308.1) *of this rule, the licensed exhibitor shall submit all of the following information to the local officials having jurisdiction over the exhibition. Such information shall include but not be limited to:*

(i) ***3308.7.1.1*** *The name of the organization sponsoring the fireworks exhibition together with the names of persons actually in charge of the fireworks exhibition.*

(ii) ***3308.7.1.2*** *The date and time of day when the fireworks exhibition is to be held.*

(iii) ***3308.7.1.3*** *The exact location planned for the fireworks exhibition.*

(iv) ***3308.7.1.4*** *The name and license number of the fireworks exhibitor who is to supervise the discharge of fireworks and of all personnel assisting within the discharge perimeter.*

(v) ***3308.7.1.5*** *The class of fireworks to be discharged with the number of set pieces and shells (specify single- or multiple-break), including experimental rockets or missiles.*

(*a*) ***3308.7.1.5.1*** *For the indoor exhibition of fireworks, the requirements for pyrotechnic product information in accordance with Chapter 7 of NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

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(vi) ***3308.7.1.6*** *The manner and place of storage of all fireworks prior to and during the fireworks exhibition for all fireworks storage shall be in accordance with paragraph* (J)(1)(3310.1) *of this rule.*

(vii) ***3308.7.1.7*** *A diagram of the premises on which the fireworks exhibition is to be held, showing the point at which the fireworks are to be discharged, the location of all buildings, highways, railroads, or other inhabited structures within one thousand feet of the discharge and potential landing site. The diagram shall also show the line barriers behind which the audience will be restrained.*

(*a*) ***3308.7.1.7.1*** *For the indoor exhibition of fireworks, the diagram must include:*

(*i*) *The interior of the structure to be used for the exhibition and the layout of all devices to be used at the exhibition.*

(*ii*) *A description of the direction the devices shall be fired and the fallout radius for each device.*

(*iii*) *The lines behind which the audience shall be restrained.*

(*b*) ***3308.7.1.7.2*** *For the indoor exhibition of fireworks, certifications that the set, scenery and rigging materials are treated with appropriate flame retardant.*

(viii) ***3308.7.1.8*** *Proof that general liability insurance or indemnity bond issued by a company licensed to provide such coverages in the state of Ohio, for an amount no less than one million dollars or as otherwise required in a higher amount by the authority having jurisdiction, is in force for the applicant and includes acts of all employees.*

(ix) ***3308.7.1.9*** *A copy of each exhibitor's license and proof of assistant's registration for all individuals proposed to operate within the discharge perimeter.*

(x) ***3308.7.1.10*** *The name and license number of the fireworks manufacturer, wholesaler or out-of-state shipper who supplied all items in the fireworks exhibition.*

(b) ***3308.7.2*** *The licensed exhibitor reflected on the fireworks exhibition permit at the time of the fireworks exhibition shall be responsible for*

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compliance with the provisions under which the fireworks exhibition permit was granted.

(c) ***3308.7.3*** *A copy of the issued permit and the completed inspection checklist shall be sent to the state fire marshal by the fire official no later than five days after the date of the fireworks exhibition. In the event of any incident resulting in an investigation or other inquiry by the state fire marshal or other authority having jurisdiction, the completed permit and the completed inspection checklist shall be made immediately available to the state fire marshal or other authority having jurisdiction upon request.*

(8) **3308.8 *Permit, denial and revocation.*** *The local fire official and, for the outdoor exhibition of fireworks a law enforcement officer of the jurisdiction may deny or revoke a fireworks exhibition permit for any of the following:*

(a) ***3308.8.1*** *The applicant/exhibitor does not possess a valid exhibitor's license issued by the state fire marshal.*

(b) ***3308.8.2*** *The site on which the fireworks exhibition is to take place does not conform to the applicable rules.*

(c) ***3308.8.3*** *The applicant has failed to pay the permit fee or provide the required information.*

(d) ***3308.8.4*** *The applicant has failed to provide the required indemnity bond or proof of insurance.*

(e) ***3308.8.5*** *The exhibitor has failed to postpone a fireworks exhibition when so ordered due to unsafe conditions or operations, inclement weather, wind conditions, unsafe spectator conditions, or any other condition in violation of this rule.*

(f) ***3308.8.6*** *The exhibitor has failed to store the fireworks in a safe manner prior to or during the fireworks exhibition or is firing the fireworks exhibition in an unsafe manner.*

(g) ***3308.8.7*** *The licensed exhibitor present at the fireworks exhibition is not the licensed exhibitor that was designated to be present pursuant to paragraph* (H)(7)(a)(iv)(3308.7.1.4) *of this rule. The authority having jurisdiction is authorized to approve a substitution of another licensed exhibitor under extenuating circumstances prior to the fireworks exhibition provided that the substitute licensed exhibitor:*

(i) ***3308.8.7.1*** *Demonstrates to the authority having jurisdiction possession of a valid fireworks exhibitors license;*

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(ii) ***3308.8.7.2*** *Signs the fireworks exhibition permit and thereby accepts the full responsibility and liability for conducting the fireworks exhibition as initially approved;*

(iii) ***3308.8.7.3*** *Produces proof that general liability insurance or indemnity bond issued by a company licensed to provide such coverages in the state of Ohio, for an amount no less than one million dollars or as otherwise required in a higher amount by the authority having jurisdiction, is in force for the applicant and includes acts of all employees;*

(iv) ***3308.8.7.4*** *Demonstrates to the authority having jurisdiction that they are authorized by the initial exhibitor to conduct the fireworks exhibition;*

(v) ***3308.8.7.5*** *Follows the initially approved conditions of the fireworks exhibition permit;*

(vi) ***3308.8.7.6*** *Conducts the fireworks exhibition in accordance with the requirements of this rule.*

(9) **3308.9** ***Ceasing operations.*** *Operations shall immediately cease and the fireworks exhibition shall be postponed when so ordered by the authority having jurisdiction or the licensed fireworks exhibitor due to unsafe conditions or operations, inclement weather, wind conditions, unsafe spectator conditions, or any other condition in violation of this rule. The orders to cease operations, postpone the fireworks exhibition and the revocation of the fireworks exhibition permit may be communicated verbally by the authority having jurisdiction. When so ordered or when the fireworks exhibition permit has been revoked, the exhibitor shall cease firing of the fireworks exhibition immediately. The exhibitor may reapply for a new permit for the fireworks exhibition when the fire official and, for an outdoor exhibition, a law enforcement officer are satisfied that all rules, conditions, and operations are safe or have been complied with.*

(10) **3308.10** ***Safety requirements.*** *All fireworks exhibitions shall be conducted in accordance with the following as applicable to the type of exhibition:*

(a) ***3308.10.1 Mortars.*** *All mortars used in a fireworks exhibition that are greater than or equal to eight inches in diameter shall be equipped with electronic ignition equipment in accordance with NFPA 1123 as listed in rule 1301:7-7-47 of the Administrative Code.*

(b) ***3308.10.2 Standard of stability.*** *All fireworks mortars and mortar racks used at a fireworks exhibition shall conform to the requirements of NFPA 1123 as listed in rule 1301:7-7-47 of the Administrative Code and this paragraph to ensure stability.*

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(i) ***3308.10.2.1*** *All mortar racks shall be securely positioned in accordance with the requirements of NFPA 1123 as listed in rule 1301:7-7-47 of the Administrative Code. The methods used to securely position the mortar rack shall not include the use of items such as plastic ties, string, twine, tape, or any other material that may easily break, dislodge, ignite, or otherwise permit the repositioning of the mortar rack.*

(ii) ***3308.10.2.2*** *All mortars, bundles, box items, cakes, candle placements, and mortar racks shall be inherently stable or be properly secured and braced to prevent repositioning. It is not acceptable to create inherent stability of mortar racks only by connection to other mortar racks.*

(iii) ***3308.10.2.3*** *All mortar racks shall be individually secured by one or more approved method. Approved methods include but are not limited to: utilizing steel stakes, sturdy wood stakes, or spikes securely attached to the rack frame with approved materials; utilizing sand bags of sufficient quantity and height placed on each side of and in direct contact with the rack frame; utilizing wood or steel feet of sufficient length, strength, and durability, securely attached in a perpendicular orientation to the ends of the rack frame; utilizing sideboards securely mounted in a perpendicular orientation to both ends of the rack frame; or by the construction of A-frame braces of sufficient strength and durability securely attached to both ends of the rack frame.*

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(iv) ***3308.10.2.4*** *The stability of all mortars, bundles, box items, cakes, candle placements and mortar racks shall be verified by the licensed fireworks exhibitor and fire official immediately prior to the fireworks exhibition. Each such item shall be individually addressed in an appropriate manner to ensure its integrity and stability prior to providing affirmative documentation of such stability on the required inspection checklist.*

(c) ***3308.10.3 Exhibition site activity.*** *Each licensed exhibitor shall display prominently upon their person any visible identification required by the fire code official at all times when within the discharge perimeter or otherwise at the exhibition site. Each licensed exhibitor shall make their exhibitor license available for review to any fire or law enforcement officer upon request.*

(i) ***3308.10.3.1 Discharge perimeter for an outdoor exhibition.*** *Only fire officials, licensed fireworks exhibitors or persons who are employees of licensed exhibitors of fireworks and who are registered with the state fire marshal under section 3743.56 of the Revised Code shall be permitted within the discharge perimeter during a fireworks exhibition.*

(ii) ***3308.10.3.2 Fall out area for an indoor exhibition.*** *Only fire officials, licensed fireworks exhibitors, or persons who are employees of licensed exhibitors of fireworks and who are registered with the state fire marshal under section 3743.56 of the Revised Code shall be permitted within the fall out area during a fireworks exhibition. If approved by the fire official, persons associated with a theatrical or other similar performance related to the exhibition may also be permitted within the fall out area during an indoor fireworks exhibition.*

(d) ***3308.10.4 Inspection.*** *An inspection of all affected premises shall be conducted immediately following a fireworks exhibition for purposes of locating and disposing of defective or unexploded fireworks. If an outdoor fireworks exhibition is conducted at night, an inspection shall also be conducted at sunrise the following morning.*

(e) ***3308.10.5 Fire official.*** *The governing authority having jurisdiction in the location where an outdoor exhibition is to take place shall require that a certified fire safety inspector, fire chief, or fire prevention officer be present before, during, and after the outdoor fireworks exhibition. The fire safety inspector, fire chief or fire prevention officer, shall complete the detailed inspection checklist as prescribed by the state fire marshal and set forth in the appendix of this rule. If the exhibition to be inspected is an*

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outdoor exhibition, the fire chief or fire prevention officer shall complete the detailed inspection checklist, in consultation with a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district or with a designee of such a police chief or other similar chief law enforcement officer.

(f) ***3308.10.6 Assistants.*** *No licensed exhibitor of fireworks shall permit an employee to assist the licensed exhibitor in conducting fireworks exhibitions unless the employee is registered with the state fire marshal under section 3743.56 of the Revised Code.*

(g) ***3308.10.7*** *Unless otherwise specifically directed by this rule, the Administrative Code, or the Revised Code, all fireworks used in any type of exhibit shall be used in accordance with the instructions provided by the manufacturer.*

(I) ***Section 3309 Shipping and transportation***

(1) ***3309.1 General.*** *As used in this paragraph, "fireworks" includes 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0432, 1.4S fireworks (UN0337) and 1.4S special effects fireworks (UN0432). All fireworks transported on the highways in this state and all wholesale and commercial sales of fireworks shall be packaged, shipped, placarded, and transported in accordance with DOTn regulations applicable to the transportation, and the offering for transportation, of hazardous materials and NFPA 1123, 1124 and 1126 as listed in rule 1301:7-7-47 of the Administrative Code. All fireworks otherwise transported into or through this state shall be transported in accordance with applicable law. For purposes of this paragraph, "wholesale and commercial sales" includes all sales for resale and any nonretail sale made in furtherance of a commercial enterprise. For purposes of enforcement of these regulations under section 4905.83 of the Revised Code, any sales transaction exceeding one thousand pounds shall be presumed to be a wholesale or commercial sale.*

(2) ***3309.2 Interstate shipment of fireworks.*** *No person shall ship fireworks into this state by mail, parcel post, or common carrier unless the person possesses a valid shipping permit issued under section 3743.40 of the Revised Code, and the fireworks are shipped directly to the holder of a license issued under section 3743.03 or 3743.16 of the Revised Code or to the holder of a license issued under section 3743.51 of the Revised Code who possesses a valid exhibition permit issued in accordance with section 3743.54 of the Revised Code and the fireworks being shipped are to be used at that specifically permitted exhibition.*

(3) ***3309.3 Intrastate shipment of fireworks.*** *No person shall ship fireworks within this state by mail, parcel post, or common carrier unless the fireworks are shipped directly to the holder of a license issued under section 3743.03 or*

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3743.16 of the Revised Code or to the holder of a license issued under section 3743.51 of the Revised Code who possesses a valid exhibition permit issued in accordance with section 3743.54 of the Revised Code and the fireworks being shipped are to be used at that specifically permitted exhibition.

(J) ***Section 3310 Storage of fireworks at exhibition site***

(1) ***3310.1* Storage.** The storage of fireworks at the *exhibition* site shall comply with the requirements of this *paragraph* and NFPA 1123 and NFPA 1126 *as listed in rule 1301:7-7-47 of the Administrative Code. All fireworks to be used at a fireworks exhibition shall be stored in an approved magazine at the exhibition site until immediately prior to their use. Such magazine shall be located in an area approved by the local fire official and shall meet the table of distances requirements of this rule. Magazines shall be constructed in accordance with this rule. No fireworks may be acquired or stored by an exhibitor until the permit for the specific exhibition that the fireworks will be used at has been issued. Such storage shall not exceed a period of seventy-two hours prior to the start of the fireworks exhibition as provided for in the approved permit unless all of the following apply:*

(a) *The fire code official having jurisdiction over the exhibition approves the extended time period for storage as part of the exhibition permit.*

(b) *All fireworks are stored at the exhibition site as that site is described in the permit.*

(c) *The fireworks stored at the exhibition site in accordance with this rule shall only be those fireworks approved by the fire code official having jurisdiction as necessary for the specific exhibition listed in the exhibition permit that describes the extended storage period.*

(d) *The extended time period for storage shall not exceed a maximum of fourteen days.*

(2) ***3310.2* Supervision and weather protection.** Beginning as soon as fireworks have been delivered to the *exhibition* site, they shall not be left unattended.

(3) ***3310.3* Weather protection.** Fireworks shall be kept dry after delivery to the *exhibition* site.

(4) ***3310.4* Inspection.** *Fireworks* shall be inspected by the operator or assistants after delivery to the *exhibition* site. *Fireworks* having tears, leaks, broken fuses or signs of having been wet shall be set aside and shall not be fired. Aerial shells shall be checked for proper fit in mortars prior to discharge. Aerial shells that do not fit properly shall not be fired. After the *fireworks exhibition*, damaged, deteriorated or dud *fireworks* shall either be returned to the supplier or destroyed

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in accordance with the supplier's instructions and *paragraph* (D)(10)(3304.10) *of this rule*.

Exception: Minor repairs to fuses shall be allowed. For electrically ignited *exhibitions*, attachment of electric matches and similar tasks shall be allowed.

(5) ***3310.5* Sorting and separation.** After delivery to the *exhibition* site and prior to the *fireworks exhibition*, all *aerial* shells shall be separated according to size and their designation as salutes.

Exception: For electrically fired *fireworks exhibitions*, or *exhibitions* where all shells are loaded into mortars prior to the show, there is no requirement for separation of shells according to size or their designation as salutes.

(6) ***3310.6* Ready boxes.** Fireworks that will be temporarily stored at the site during the fireworks *exhibition* shall be stored in ready boxes located upwind and at least 25 feet (7620 mm) from the mortar placement and separated according to size and their designation as salutes.

Exception: For electrically fired *fireworks exhibitions*, or *exhibitions* where all shells are loaded into mortars prior to the show, there is no requirement for separation of shells according to size, their designation as salutes, or for the use of ready boxes.

(K) **Section 3311 Flame effects permit**

(1) **3311.1 *Scope.*** *This paragraph shall apply to the following:*

(a) *Use of flame effects for entertainment, exhibition, demonstration or simulation before an audience;*

(b) *Design, fabrication, installation, testing, control, operation, and maintenance of equipment, materials, procedures, and systems used to produce flame effects;*

(c) *Rehearsal, videotaping, audio taping, or filming of any television, radio, or movie production if such production is before an audience and includes the use of flame effects;*

(d) *Rehearsal of any production incorporating flame effects intended to be presented before an audience;*

(e) *Storage and holding at a venue where flammable and combustible materials are used to create flame effects;*

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This rule shall not apply to:

(a) *Flame effects produced solely by pyrotechnic special effects devices;*

(b) *Use of pyrotechnic special effects;*

(c) *Storage of flammable solids, liquids, and gases not to be used to create flame effects;*

(d) *Manufacture, off-site storage, and transportation of materials and equipment used to produce flame effects;*

(e) *Use of flame effects in fire training, except where there is an audience that is not part of the training;*

(f) *Manufacture, transportation, storage, sale, or use of model or high-power rocket motors;*

(g) *Traditional non-theatrical public display of flames such as the following:*

(i) Use of lighted candles in restaurants or religious services;

(ii) Fireplace in areas open to the public;

(iii)Restaurant cooking visible to the patrons;

(iv) Listed Group II flame effects.

(h) *Use of motor vehicles in races or sanctioned competitive sporting events.*

(2) **3311.2 *Permit.*** *A permit shall be obtained from the local fire code official of the jurisdiction for the use of indoor and outdoor flame effects as set forth in paragraph (K)(1)(3311.1) of this rule at least five days in advance of the production, exhibition, demonstration, or simulation using the flame effects. Failure to obtain a permit prior to five days in advance of the production or non-compliance with the requirements of this rule and NFPA 160 as listed in rule 1301:7-7-47 of the Administrative Code may, in the discretion of the local fire code official, result in denial or revocation of the permit.*

Before any flame effects exhibition permit issued under this rule is considered to be a valid permit to allow the licensed flame effects exhibitor to conduct a flame effects exhibition, the permit, upon approval, must be signed and dated by the local fire code official having jurisdiction. As required by the local fire code official to confirm compliance with this paragraph, receipt of the permit and/or any conditions associated thereto, the flame effects exhibitor shall sign and date the permit application, the permit and/or any other required documentation.

When a permit is required by this rule, a local fire code official shall be present during the production, exhibition, demonstration, or simulation using flame effects.

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***Exception**: When issuing a permit for a group I or group II flame effects production, exhibition, demonstration, or simulation using flame effects, the local fire code official may determine that a local fire code official need not be present during such an exhibition.*

If a permit is required by this rule, the permit shall identify the local fire code official who will be present before, during, and after the flame effects exhibition.

If any portion of the fire protection or life safety systems of a structure are interrupted during the operation of flame effects, a local fire code official must grant a prior approval of and be present during such interruptions.

Any performance adding flame effects different from the performance described in the permittee's plan shall require approval by the local fire code official having jurisdiction.

(3) **3311.3 *Permit form.*** *The application form for exhibition permit as prescribed by the state fire marshal shall be legibly and fully completed by the licensed flame effects exhibitor to clearly indicate the circumstances and class of the flame effects exhibition the flame effects exhibitor wishes to conduct.*

(4) **3311.4 *Flame EffectsUse Plan.*** *Before the performance of any production, the permit applicant shall submit a plan for the use of flame effects to the local fire code official. The plan shall be made in writing in such form as is acceptable to the local fire code official and shall demonstrate compliance with this rule and NFPA 160 listed in rule 1301:7-7-47 of the Administrative Code. The plan shall include but is not limited to the following:*

(a) *The name of the person, group, or organization sponsoring the production;*

(b) *The date and time of day of the production;*

(c) *The exact location of the production;*

(d) *The name of the flame effects exhibitor and proof of valid flame effects exhibitor license issued by the state fire marshal;*

(e) *The number, names, and ages of all assistants that will be present;*

(f) *The qualifications and experience of the flame effects exhibitor;*

(g) *The flame effects classification and design criteria in accordance with NFPA 160 listed in rule 1301:7-7-47 of the Administrative Code;*

(h) *A diagram of the site indicating the location of all flame effects devices, the areas effected by each device, location of the audience and separation distances, means of egress, and information on all fuels and ventilation for each effect;*

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(i) *A narrative description of the flame effects, controls, and control sequences of all devices, and emergency response procedures;*

(j) *If applicable, a valid Material Safety Data Sheet (MSDS) for each fuel utilized;*

(k) *Documentation that the set, scenery, and rigging materials are treated with appropriate flame retardant.*

After a permit has been granted, the permittee shall keep the plan available at the site for safety inspectors or other designated agents of each authority having jurisdiction.

(5) **3311.5** ***Fee.*** *When the legislative authority of the political subdivision has prescribed a fee for the issuance of a permit for a flame effects exhibition, the local fire code official shall not issue such permit until the flame effects exhibitor pays the requisite fees as required by the local legislative enactment setting forth such fee.*

(6) **3311.6** ***Inspection of site.*** *Prior to issuance, the local fire code official having jurisdiction shall inspect the premises where the flame effects exhibition is to take place and determine whether the exhibition, demonstration, or simulation using flame effects is in compliance with this rule, Chapter 3743.of the Revised Code, and NFPA 160 (Annex C, Inspection Guidelines) listed in rule 1301:7-7-47 of the Administrative Code.*

(7) **3311.7** ***Inspection checklist.*** *At the time of the required site inspection, the local fire code official having jurisdiction shall complete the required detailed inspection checklist as prescribed by the state fire marshal. No production, exhibition, demonstration, or simulation using flame effects shall occur in this state until the licensed flame effects exhibitor possesses a copy of the appropriate checklist signed by the local fire code official.*

(8) **3311.8** ***Requirements to Exhibit Flame Effects.*** *No person shall engage in the production, exhibition, demonstration, or simulation using flame effects unless the person obtains a permit in accordance with this rule. No permit for a flame effects exhibition shall be granted unless the applicant is in possession of a valid flame effects exhibitor's license in accordance with OFC 3319 to exhibit, demonstrate, or simulate using flame effects. Each applicant for a permit shall show the applicant's license as a flame effects exhibitor's license to the local fire code official and, upon request, to the police chief or other similar law enforcement officer.*

(9) **3311.9** ***Permit, denial and revocation.*** *The local fire code official may deny or revoke a flame effects exhibition permit for any of the following:*

(a) *The applicant/exhibitor does not possess a valid flame effects exhibitor's license issued by the state fire marshal.*

(b) *The site on which the flame effects exhibition is to take place does not conform to the applicable rules.*

(c) *The applicant has failed to pay the permit fee or provide the required information.*

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(d) *The applicant has failed to provide the required indemnity bond or proof of insurance, if such indemnity bond or proof of insurance is required by the local fire code official at the local fire code official's discretion.*

(e) *The flames effects exhibitor has failed to postpone a flame effects exhibition when so ordered due to unsafe conditions or operations, unsafe spectator conditions, or any other condition in violation of this rule.*

(f) *The flames effects exhibitor has failed to store the flame effects in a safe manner prior to or during the flame effects exhibition or is firing the flame effects exhibition in an unsafe manner.*

(g) *The licensed flames effects exhibitor present at the flame effects exhibition is not the licensed flame effects exhibitor that was designated to be present pursuant to paragraph (K)(2)(3311.2) and (K)(4)(3311.4) of this rule. The local fire code official is authorized to approve a substitution of another licensed flame effects exhibitor under extenuating circumstances prior to the flame effects exhibition provided that the substitute licensed flame effects exhibitor:*

(i) *Demonstrates to the local fire code official possession of a valid flame effects exhibitor's license;*

(ii) *Signs the flame effects exhibition permit and thereby accepts the full responsibility and liability for conducting the flame effects exhibition as initially approved;*

(iii) *If required by the local fire code official, produces proof that general liability insurance or indemnity bond issued by a company licensed to provide such coverage in the state of Ohio, for an amount no less than one million dollars or as otherwise required in a higher amount by the local fire code official, is in force for the applicant and includes acts of all employees;*

(iv) *Demonstrates to the local fire official that they are authorized by the initial flame effects exhibitor to conduct the flame effects exhibition;*

(v) *Follows the initially approved conditions of the flame effects exhibition permit;*

(vi) *Conducts the flame effects exhibition in accordance with the requirements of this rule.*

(h) *The licensed flame effects exhibitor failed to produce, exhibit, demonstrate, or simulate using flame effects in accordance with this rule or otherwise failed to comply with the requirements set forth in this rule.*

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(10) **3311.10** ***Ceasing operations.*** *Operations shall immediately cease and the flame effects exhibition shall be postponed by the licensed flame effects exhibitor when so ordered by the local fire code official or due to unsafe conditions or operations, unsafe spectator conditions, or any other condition in violation of this rule.*

The local fire code official shall order the immediate cessation of the flame effects exhibition due to unsafe conditions or operations, unsafe spectator conditions, or any other condition in violation of this rule. The orders to cease operations, postpone the flame effects exhibition and the revocation of the flame effects exhibition permit may be communicated verbally by the local fire code official. When so ordered or when the flame effects exhibition permit has been revoked, the flame effects exhibitor shall cease the flame effects exhibition immediately. The flame effects exhibitor may reapply for a new permit for the flame effects exhibition when the local fire code official is satisfied that all rules, conditions, and operations are safe or have been complied with.

(11) **3311.11** ***General.*** *All flame effects control systems shall be designed and installed to prevent accidental firing and unintentional release of fuel.*

(12) **3311.12** ***Holding Areas, Quantity, Use, Operation, Design, and Control of Flame Effects.***

(a) ***3312.12.1General*** *All flame effect materials and devices not connected for use shall be stored in accordance with applicable codes and standards and any state and local regulations.*

(b) ***3312.12.2 Holding areas*** *All flammable flame effect materials and loaded devices that have been removed from storage areas in anticipation of use shall be stored in a holding area acceptable to the local fire code official.*

(c) ***3312.12.3 Quantity limitations.*** *The maximum quantity of flammable flame effect materials and loaded devices stored in a holding area shall be that quantity used in one day.*

Quantities of flammable flame effect materials and devices in excess of those used in one day shall be permitted to be stored in holding areas with the approval of the local fire official.

Flammable flame effect materials and loaded devices in holding areas shall be secured or supervised continuously by an attendant trained in emergency response procedures.

All flame effects and flame effects exhibitors shall comply with NFPA 160 and the NFPA 160 annexes as listed in rule 1301:7-7-47 of the Administrative Code.

(13) **3311.13** ***Insurance.*** *The local fire code official having jurisdiction may require the applicant to maintain valid general liability insurance or an indemnity bond in force for the applicant and includes acts of all employees that is issued by a company licensed to*

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provide such coverage in the state of Ohio, for an amount no less than one million dollars or as otherwise required in a higher amount by the local fire official.

(14) **3311.14** ***Documentation.***

(a) ***3311.14.1 General*** *All flame effects devices and materials shall have drawings, manuals, or written descriptions to describe the type of item and performance specifications of the flame effects created. This documentation shall be on site and available to the local fire official.*

(15) **3311.15** ***Operating Procedures*** *All flame effects shall have written operating instructions including start-up, show operations normal shutdown procedures, and emergency shutdown procedures. Operating instructions shall be available to the operator.* (Comment 2605)

(L) ***Section 3312 Operational requirements***

(1) ***3312.1*** *All licensed manufacturers, wholesalers, shippers, and fireworks exhibitors shall comply with the applicable requirements listed in this rule, the building code, NFPA 1123, NFPA 1124 and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, relating to operation, record keeping and reporting, site security, separation distances, heating, lighting, electrical equipment, smoking regulations, fire and explosion prevention, fire protection and emergency procedures, transportation, and operations of fireworks exhibits.*

(a) ***3312.1.1*** *All manufacturing or processing of fireworks must be in accordance with Chapter 3743. of the Revised Code, the applicable provisions of NFPA 1123, NFPA 1124 and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code and, to the extent not addressed by the Revised Code or NFPA 1123, NFPA 1124 and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, in accordance with paragraph (E)(3305) of this rule.*

(2) ***3312.2*** *Licensed manufacturers and licensed wholesalers need not comply with any requirements of paragraph* (M)(3313) *of this rule which concern the distance requirements of division* (G) *of section 3743.06 or division* (H) *of section 3743.19 of the Revised Code if the buildings were erected on or before May 30, 1986 and were occupied by a licensee with a license for that location prior to December 1, 1990.*

(3) ***3312.3*** ***Continuing education.*** *Each licensed manufacturer, wholesaler, or exhibitor shall comply with the applicable continuing education requirements as follows:*

(a) ***3312.3.1*** ***Manufacturer.*** *Each licensed manufacturer of fireworks that possesses fireworks for sale and sells fireworks under division* (C) *of*

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section 3743.04 of the Revised Code, or a designee of the manufacturer, whose identity is provided to the state fire marshal by the manufacturer, annually shall attend a continuing education program . The state fire marshal shall develop the program and the state fire marshal or a person or public agency approved by the state fire marshal shall conduct it. A licensed manufacturer or the manufacturer's designee who attends a required program, within one year after attending the program, shall conduct in-service training for other employees of the licensed manufacturer regarding the information obtained in the program. A licensed manufacturer shall provide the state fire marshal with notice of the date, time, and place of all in-service training. The state fire marshal shall establish the subjects to be taught, the length of the classes, and the standards for approval, and the time periods for notification by the licensee to the state fire marshal of any in-service training.

(b) ***3312.3.2* Wholesaler.** *Each licensed wholesaler of fireworks or a designee of the wholesaler, whose identity is provided to the state fire marshal by the wholesaler, annually shall attend a continuing education program . The state fire marshal shall develop the program and the state fire marshal shall conduct it. A licensed wholesaler or the wholesaler's designee who attends a required program, within one year after attending the program, shall conduct in-service training for other employees of the licensed wholesaler regarding the information obtained in the program. A licensed wholesaler shall provide the state fire marshal with notice of the date, time, and place of all in-service training . The state fire marshal shall establish the subjects to be taught, the length of the classes, and the standards for approval, and the time periods for notification by the licensee to the state fire marshal of any in-service training.*

(c) ***3312.3.3* Exhibitor.** *Each licensed exhibitor of fireworks or a designee of the exhibitor, whose identity is provided to the state fire marshal by the exhibitor, shall attend a continuing education program consisting of not less than six hours of instruction once every three years. The state fire marshal shall develop the program and the state fire marshal or a person or public agency approved by the state fire marshal shall conduct it. A licensed exhibitor or the exhibitor's designee who attends a required program shall within one year after attending the program, and on an annual basis during the following two years, may conduct in-service training for other employees of the licensee regarding the information obtained in the program. After each in-service training, the licensed exhibitor shall provide a roster to the state fire marshal's office listing all those that attended the in-service training. A licensed exhibitor shall provide the state fire marshal with certified proof of full compliance with all applicable annual training requirements of the United States Department of Transportation and of the Occupational Safety and Health Administration. A licensed exhibitor shall provide the state fire marshal*

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with notice of the date, time, and place of all in-service training not less than thirty days prior to an in-service training event. An individual exhibitor who has no employees shall not fulfill continuing education requirements through a designee. An exhibitor who fulfills the continuing education requirements through a designee shall provide the identity and exhibitor license number of the designee to the state fire marshal prior to the training program. Each licensed exhibitor shall provide documentation evidencing compliance with the continuing education requirements in the manner prescribed in the license renewal application material.

(d) ***3312.3.4* Records.** *All records documenting the completion of the continuing education required by this rule shall be maintained for a period of three years and shall be available for inspection by the state fire marshal or his/her designee when requested.*

(M) ***Section 3313 Testing of fireworks for classification***

(1) ***3313.1* Suspect fireworks.** *If there is reason to believe that the explosive composition or the pyrotechnic mixture of a particular fireworks device of the manufacturer, wholesaler, shipper, or exhibitor does not meet the DOTn classification regulations, such person shall furnish a random sampling of such fireworks device to the state fire marshal for testing to determine compliance of the device with DOTn classification regulations.*

(a) *Fireworks shall be evaluated and tested by the state fire marshal by written request or by seizure.*

(b) *The classification test shall not be construed as conferring classification to any other item, nor shall the trade name of any item be changed without notifying the state fire marshal thirty days prior to such change.*

(c) *Fireworks or pyrotechnic devices that have not been classified by DOTn classification standards shall not be used, stored, or sold for use within this state.*

(2) ***3313.2* Fee.** *Fireworks or pyrotechnic devices that are submitted to the state fire marshal for classification by licensed manufacturers, wholesalers, shippers, or exhibitors shall be accompanied by a fee of twenty dollars for each item.*

(3) ***3313.3* Submission of live samples.** *When required by the state fire marshal, live samples shall be submitted to the state fire marshal for testing. The number of samples necessary shall be determined by the state fire marshal, but in no case shall the number of samples be less than ten.*

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(4) ***3313.4*** *No person, other than the state fire marshal, a licensed manufacturer, licensed wholesaler or a licensed exhibitor pursuant to a properly issued exhibition permit, shall test fireworks. All testing of fireworks shall be in accordance with Chapter 3743. of the Revised Code, this rule and, to the extent not addressed by the Revised Code or this rule, in accordance with the applicable provisions of NFPA 1123, NFPA 1124 and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

(M) ***Section 3314 Fireworks categories and labeling***

(1) ***3314.1*** *Pursuant to Chapter 3743. of the Revised Code, including section 3743.05 of the Revised Code, the state fire marshal establishes the following fireworks categories and uses:*

(a) ***3314.1.1 Manufacturing.*** *A licensed manufacturer of fireworks may manufacture or process only the following categories of fireworks in accordance with Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(b) ***3314.1.2 Sales and other operations.*** *In accordance with Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, a licensed manufacturer may offer for sale and sell at wholesale or retail fireworks if manufactured by the licensee or fireworks manufactured by another, and may conduct other fireworks related activities on its licensed premises, for only the following categories of fireworks: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

In accordance with Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, a licensed wholesaler may offer for sale and sell fireworks at wholesale or retail, and may conduct other fireworks related activities on its licensed premises, for only the following categories of fireworks: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).

(c) **3314.1.3 Acquisition of fireworks.**

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(i) ***3314.1.3.1*** *Out of state residents acquiring and taking possession of fireworks while such persons are in Ohio may obtain only the following category of fireworks from a licensed manufacturer or licensed wholesaler in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code: 1.4G fireworks (UN0336).*

(ii) ***3314.1.3.2*** *Out of state persons acquiring fireworks while such persons are not located in Ohio may obtain the following categories of fireworks from a licensed manufacturer or licensed wholesaler in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(iii) ***3314.1.3.3*** *Ohio residents acquiring and taking possession of fireworks while such persons are in Ohio may obtain only the following category of fireworks in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code: 1.4G fireworks (UN0336).*

(iv) ***3314.1.3.4*** *Licensed manufacturers and licensed wholesalers may acquire, in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, the following categories of fireworks from other licensed manufacturers and licensed wholesalers or licensed out of state shippers: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(v) ***3314.1.3.5*** *A licensed exhibitor of fireworks may acquire, in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule*

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1301:7-7-47 of the Administrative Code, only the following categories of fireworks for a properly permitted exhibition only from a licensed manufacturer, a licensed wholesaler or, if such fireworks are shipped directly to an exhibition site, from a licensed out of state shipper:

(*a*) ***3314.1.3.5.1*** *For an outdoor display exhibition: 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(*b*) ***3314.1.3.5.2*** *For an indoor display exhibition: 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(d) ***3314.1.4*** *Ignition, discharge and display of fireworks. Other than the testing of fireworks described in paragraph (M)(3313) of this rule, only a licensed exhibitor acting in accordance with a properly issued exhibition permit and in accordance with the federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code, may ignite, discharge or display only the following categories of fireworks:*

(i) ***3314.1.4.1 for an outdoor display exhibition.*** *1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(ii) ***3314.1.4.2 For an indoor display exhibition.*** *1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(e) ***3314.1.5 Shipping into Ohio.*** *Only the following categories of fireworks may be shipped into Ohio:*

(i) ***3314.1.5.1 Directly to a licensed manufacturer or a licensed wholesaler.*** *1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

(ii) ***3314.1.5.2 Directly to a licensed exhibitor at the site of a properly permitted outdoor exhibition for such exhibitor.*** *1.1G fireworks*

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(UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).

(iii) ***3314.1.5.3 Directly to a licensed exhibitor at the site of a properly permitted indoor exhibition for such exhibitor.*** *1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432).*

All such shipments must be in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.

(f) ***3314.1.6 Possession, transportation and storage of fireworks.*** *The possession, transportation and storage of 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) shall be in accordance with federal laws, rules and regulations, Chapter 3743. of the Revised Code, this rule and the applicable provisions of NFPA 1123, NFPA 1124 and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

No other types of fireworks may be manufactured, sold, purchased, shipped, transported, possessed, ignited, displayed, stored or otherwise used in Ohio.

3314.2 Fireworks labeling. *All fireworks manufactured, sold, shipped, transported, or displayed in this state shall be labeled in accordance with the CPSC regulations and other applicable laws, rules or regulations, including regulations promulgated by the United States Department of Transportation.*

(2) ***3314.3 Sales.*** *A licensed manufacturer or wholesaler shall only sell fireworks that meet the standards set by the consumer product safety commission or by the American fireworks standard laboratories or that have received an EX number from the United States Department of Transportation.*

(O) ***Section 3315 General requirements for licensure application and license***

(1) ***3315.1 License fee.***

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(a) ***3315.1.1*** *Every license fee required in accordance with this rule shall be paid with cash or by money order, postal note, cashier's check, credit card, certified check or personal check payable to the "Treasurer, State of Ohio".*

(b) ***3315.1.2*** *Every required license fee shall be paid at or mailed to the "Division of State Fire Marshal," at the address specified on the application material.*

(2) ***3315.2*** ***Expired license.*** *Renewal applications received after the required submittal dates shall be considered new applications and shall meet the examination requirement of paragraph (S)(7)(3319.7) of this rule.*

(3) ***3315.3*** ***Duplicate license.*** *In the event that a valid license is lost or accidentally destroyed, an application for a duplicate license shall be made in writing to the state fire marshal. The application for a duplicate license shall be accompanied by a ten-dollar fee.*

(4) ***3315.4*** ***Misuse of license.*** *No person who has been issued a manufacturer's or wholesaler's license shall give or permit any other person to use such license in violation of division* (D) *of section 3743.04 and division* (D) *of section 3743.17 of the Revised Code. No person who has been issued a shipping permit shall give or permit any other person to use such permit in violation of division* (F) *of section 3743.40 of the Revised Code. No person who has been issued an exhibitor's license shall give or permit any other person to use such license in violation of division* (B) *of section 3743.52 of the Revised Code. Any license or permit is not transferable or assignable to any other holder at the same location without the written permission of the state fire marshal, nor shall any license be extended beyond the dates set out therein.*

Exception: *A permit for a fireworks exhibition may be transferred to a substitute licensed exhibitor as provided for in paragraph* (H)(8)(g)(3308.8.7) *of this rule.*

(5) ***3315.5*** ***Forfeiture of fee.*** *When a license has been denied, revoked or suspended pursuant to this rule and Chapter 119. of the Revised Code, the fee for such license shall be forfeited and deposited into the state fire marshal's rotary fund and applied as a fee for license processing.*

(6) ***3315.6*** ***Issuance, denial or revocation.*** *The state fire marshal shall not issue an initial license, permit or registration authorized by Chapter 3743. of the Revised Code, if the applicant for the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license or permit, has been convicted of or pleaded guilty to, after June 30, 1997, a felony under the laws of this state, another state, or the United States.*

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(7) ***3315.7* Investigation.** *Upon receipt of an application and the required accompanying matter, the state fire marshal shall forward to the superintendent of the bureau of criminal identification and investigation a request that the bureau conduct an investigation of the applicant and, if applicable, additional individuals who hold, own, or control five per cent or greater beneficial or equity interest in the applicant, to determine whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States. If the applicant for initial licensure has resided in this state for less than five continuous years immediately prior to the date the applicant submits an initial application, the superintendent also shall request that the Federal Bureau of Investigation conduct an investigation of the applicant and, if applicable, additional individuals who hold, own or control a five per cent or greater beneficial or equity interest in the applicant, to determine whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States. The superintendent shall forward the results of the investigation to the state fire marshal and may charge a reasonable fee for providing the results. The state fire marshal shall also assess the applicant any fee charged by the superintendent for the results to the applicant.*

(8) ***3315.8* License status.** *The state fire marshal shall not place the license of a manufacturer or wholesaler in a temporarily inactive status while the holder of the license is attempting to qualify to retain the license.*

(9) ***3315.9* Geographic transfer of license.** *Upon application by a licensed wholesaler of fireworks, a wholesaler license may be transferred from one geographic location to another within the same municipal corporation or within the unincorporated area of the same township, but only if all of the following apply:*

(a) *The identity of the holder of the license remains the same in the new location.*

(b) *The former location is closed prior to the opening of the new location and no fireworks business of any kind is conducted at the former location after the transfer of the license.*

(c) *The new location has received a local certificate of zoning compliance and a local certificate of occupancy, and otherwise is in compliance with all local building regulations.*

(d) *Every building or structure at the new location is separated from occupied residential and nonresidential buildings or structures, railroads,*

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highways, or any other buildings or structures located on the licensed premises in accordance with the distances specified in NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code.

(e) *Neither the licensee nor any person holding, owning, or controlling a five per cent or greater beneficial or equity interest in the license has been convicted of or has pleaded guilty to a felony under the laws of this state, any other state, or the United States after July 1, 1997.*

(f) *The state fire marshal approves the request for the transfer. The new locations shall comply with the requirements specified in divisions* (A)(1) *and* (A)(2) *of section 3743.25 of the Revised Code whether or not the fireworks showroom at the new location is constructed, expanded, or first begins operating on and after July 1, 1997.*

(10) ***3315.10 Ownership transfer of license.*** *Upon application by a licensed manufacturer or wholesaler of fireworks, a manufacturer or wholesaler license may be transferred to another person for the same particular location for which the license was issued if the assets of the manufacturer or wholesaler are transferred to that person by inheritance or by a sale approved by the state fire marshal. The state fire marshal shall not approve any transfer applications under this paragraph unless:*

(a) *The state fire marshal receives a satisfactory application for such a transfer on a form approved by the state fire marshal.*

(b) *The person seeking to transfer the license is the verified owner of the license and is otherwise permitted by law to transfer its ownership interests in such license.*

(c) *The person receiving ownership of the license meets the requirements of the Revised Code and this code for the possession of such a license.*

(d) *The licensed premises for the particular location is inspected by the state fire marshal.*

(e) *The license and the licensed premises are in compliance with the provisions of the Revised Code and this code.*

(P) Section 3316 Requirements for manufacturers and wholesalers

(1) ***3316.1 Application.*** *Application by a manufacturer or wholesaler for an original license or a renewal license shall be made prior to the first day of October preceding the license year for which the original application or renewal application is being made. The application form shall be as prescribed by the state fire marshal. Failure to submit the application and license fee prior to the*

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first day of October may require that the applicant wait until the following year to make another application. The original and renewal fee for a manufacturer or wholesaler license shall be two thousand seven hundred fifty dollars. The manufacturer or wholesaler license is effective for one year beginning on the first day of December. The state fire marshal shall issue or renew a license only on that date and at no other time.

(a) ***3316.1.1*** *If an applicant has any storage locations approved in accordance with the Revised Code or this code, the applicant also shall submit a fee of one hundred dollars per storage location for the inspection of each storage location.*

(2) ***3316.2*** ***Denial or revocation of license.*** *A manufacturer or wholesaler license may be denied or revoked pursuant to Chapter 119. of the Revised Code when any of the following occur:*

(a) ***3316.2.1*** *The applicant has failed to submit proof of comprehensive general liability insurance or licensee has failed to maintain the same.*

(b) ***3316.2.2*** *The applicant has failed to provide the required information on the application form provided by the state fire marshal including, but not limited to failure to include, the identification of a statutory agent if applicable or other designated agent for service of process at the time of application and prompt notification of any changes in the statutory agent.*

(c) ***3316.2.3*** *The applicant has failed to include the required fee for the license with the application.*

(d) ***3316.2.4*** *The applicant withdraws his or her application prior to an investigation or inspection by the state fire marshal to determine if the license shall be issued.*

(e) ***3316.2.5*** *The applicant or licensee has made a misrepresentation or filed false statements.*

(f) ***3316.2.6*** *There is substantial evidence that the fireworks premises are not in full compliance with Chapters 3781. and 3791. of the Revised Code, or any applicable building or zoning regulations.*

(g) ***3316.2.7*** *The state fire marshal shall revoke or deny renewal of a license or permit first issued under Chapter 3743. of the Revised Code on or after July 1, 1997, if the holder of the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the holder of the license or permit, is convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.*

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(h) ***3316.2.8*** *The licensed premises fails to comply with the requirements as set forth in paragraph* (W)(3323) *of this rule.*

(i) ***3316.2.9*** *The applicant, licensee or premises fails to comply with the requirements or any provision of the Ohio Revised Code, Ohio Administrative Code or NFPA standards as listed in rule 1301:7-7-47 of the Administrative Code, or any order of the state fire marshal.*

(3) ***3316.3*** ***Fireworks listing.*** *Applicants for all manufacturer or wholesaler licenses shall submit with their application to the state fire marshal a complete detailed list of all types of fireworks that they intend to wholesale, sell, offer for sale, transport, process, or otherwise dispose of. The list shall contain the following information:*

(a) ***3316.3.1*** *The classification of all fireworks, including 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) materials in accordance with the regulations of the U.S. Department of Transportation (DOTn 49 CFR as listed in rule 1301:7-7-47 of the Administrative Code), the type of all fireworks, and the names of each device in the inventory. Records of the amount of each type of device kept in the inventory shall be made available for inspection by the state fire marshal or his designee or fire code official upon request.*

(4) ***3316.4*** ***Change in fireworks list.*** *Applicants for a manufacturer or wholesaler license shall notify the state fire marshal in writing of any changes in content, construction, additions of, or deletion of any fireworks device on the submitted list. All lists shall be updated annually for license renewal.*

(5) ***3316.5*** ***Map.*** *All applicants for an initial manufacturer or wholesaler license, and thereafter at the discretion of the state fire marshal, shall submit a map showing the premises, all premises boundaries, building locations, building dimensions, distances between buildings, distance of the buildings from lot lines, railroads, roadways and habitable structures on adjoining properties. The map shall be sufficient to clearly delineate the boundaries, dimensions and all structures or other temporary or permanent fixtures located thereon that constitute the licensed premises. All buildings and structures shall be numbered and a list shall be attached to the map that corresponds to the building and structure number assigned to each, indicating the type of construction, date of construction (if erected after May 30, 1986) and actual use of each building and structure. Maps shall be drawn to scale by an architect, engineer or cartographer.*

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(a) ***3316.5.1*** ***Boundaries of a licensed premises.*** *If a licensed premises consists of more than one parcel of real estate, those parcels shall be contiguous unless an exception is allowed pursuant to Chapter 3743. of the Revised Code and this rule for storage locations. The boundaries of a licensed premises, including the boundaries of an approved storage location, shall not change unless the license holder has first obtained written approval from the state fire marshal. The state fire marshal shall approve the change to such licensed premises boundaries only when the applicant clearly shows all of the following:*

(i) ***3316.5.1.1*** *The proposed change would not be contrary to public health, safety or welfare.*

(ii) ***3316.5.1.2*** *The proposed area of premises expansion or premises contraction shall maintain the contiguity of the approved boundaries for the licensed premises or storage location.*

(b) ***3316.5.2*** *Applications for such change shall include the submission of all of the following items:*

(i) ***3316.5.2.1*** *A tax or appraisal map and/or a survey plot or other professionally prepared map.*

(ii) ***3316.5.2.2*** *Property deeds, lease agreements, and/or other appropriate proof of ownership or control. If the applicant does not own the licensed premises in fee simple, then the applicant must submit documentation, such as a copy of the current lease or rental agreement for the property, that the conduct of fireworks sales or related activity is an approved use of the premises by the owner.*

(iii) ***3316.5.2.3*** *A narrative description of all properties, structures, lot lines, and boundaries of the licensed premises involved and in the proposed change thereto.*

(iv) ***3316.5.2.4*** *All other relevant information requested by the state fire marshal.*

(6) ***3316.6*** ***Ownership.*** *Applicants for all manufacturer and wholesaler licenses shall submit with their application the parcel number and a copy of the deed of ownership or land contract for all of the parcels constituting the licensed premises. If the applicant does not own the licensed premises in fee simple, then the applicant must submit documentation, such as a copy of the current lease or rental agreement for the property, that the conduct of fireworks sales or related activity is an approved use of the premises by the owner.*

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(7) ***3316.7* Signature.** *The application for a manufacturer or wholesaler license shall be signed by the applicant. If the application is made by a partnership, it shall be signed by each partner of the partnership. If the application is made by a corporation, it shall be signed by the president of the corporation. The original or a certified copy of the articles of incorporation filed with the office of the secretary of state, stating each officer and statutory agent by name, and the letter of good standing shall be included with the application. Any change in the name of the identified officers of a corporation or the name of the identified statutory agent if applicable or other designated agent for service of process for each manufacturer or wholesaler that occurs during the licensure period shall be immediately submitted in writing to the state fire marshal.*

(8) ***3316.8* Magazine.** *For a manufacturer of fireworks license, each fireworks plant shall have at least one Class 1 magazine that is approved by the Bureau of Alcohol, Tobacco, and Firearms of the United States Department of the Treasury and that is otherwise in conformity with federal law. Such approval shall be evidenced only by a license issued by the Bureau of Alcohol, Tobacco, and Firearms of the United States Department of the Treasury.*

Exception: *This requirement does not apply to fireworks plants existing on or before August 3, 1931.*

(Q) ***Section 3317 Fingerprint and insurance requirements for manufacturers and wholesalers of fireworks***

(1) ***3317.1*** *Each manufacturer or wholesaler of fireworks shall submit with each application for licensure one set of the applicant's fingerprints and a set of fingerprints of any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license. The state fire marshal shall retain the fingerprints or similar identifying information submitted with each licensure application. On renewal, the applicant must submit fingerprints or similar identifying information for all new owners or shareholders of five per cent or more of the beneficial interest of the license. Persons who have previous fingerprint sets or similar identifying information on file with the state fire marshal shall resubmit new fingerprint sets or updated similar identifying information no later than thirty-six months from the date the previous fingerprint set or similar identifying information was submitted.*

(2) ***3317.2*** *Each applicant for a fireworks wholesaler license shall submit proof of comprehensive general liability insurance coverage, specifically including fire and smoke casualty on premises, in an amount not less than one million dollars for each occurrence for bodily injury liability and wrongful death at its business location. Proof of such insurance shall be submitted together with proof of coverage in an amount not less than one million dollars for products liability on all inventory located at the business location. All applicants shall submit evidence of comprehensive general liability insurance coverage verified by the insurer and*

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certified as to its provision of the minimum coverage required. The insurer who issued such insurance policy shall comply with all applicable Ohio laws or all applicable laws of the state where the insurer is located.

(3) ***3317.3*** *Each applicant for a fireworks manufacturer license shall submit proof of comprehensive general liability insurance coverage, specifically including fire and smoke casualty on premises and products, in an amount not less than one million dollars for each occurrence for bodily injury liability and wrongful death liability at the fireworks plant. All applicants shall submit evidence of comprehensive general liability insurance coverage verified by the insurer and certified as to its provision of the minimum coverage required. The insurer who issued such insurance policy shall comply with all applicable Ohio laws or all applicable laws of the state where the insurer is located.*

(4) ***3317.4*** *In the event of a fire or explosion, any person who is injured or suffers property damage shall immediately notify the state fire marshal in writing of any claim against a manufacturer or wholesaler of fireworks.*

(5) ***3317.5*** *The manufacturer or wholesaler shall notify the state fire marshal in writing at least fifteen days in advance of the expiration date, maturity date, or termination date of a liability insurance policy. The manufacturer or wholesaler shall surrender his license to the state fire marshal upon expiration, termination or cancellation of the required insurance coverage.*

(6) ***3317.6*** *A licensed wholesaler or manufacturer shall maintain comprehensive general liability insurance coverage in the amount and type specified in Chapter 3743. of the Revised Code at all times. Each policy of insurance shall contain a provision requiring the insurer to give not less than fifteen days prior written notice to the state fire marshal before termination, lapse, or cancellation of the policy, or any change in the policy that reduces the coverage of any required insurance coverage. A licensed wholesaler or manufacturer shall secure supplemental insurance in an amount and type that satisfies the requirements for coverage so that no lapse in coverage occurs at any time. A licensed wholesaler or manufacturer who secures supplemental insurance shall file evidence of the supplemental insurance with the state fire marshal prior to canceling or reducing the amount of coverage of any comprehensive general liability insurance coverage required.*

(7) ***3317.7*** *Failure by the applicant for or holder of a manufacturer or wholesaler license to comply with any paragraph of this rule is cause for the denial, revocation, or suspension of such license pursuant to Chapter 119. of the Revised Code.*

(R) ***Section 3318 Requirements for out-of-state shipping permit***

For copyright claim information, please see the notice attached to the last page of this rule.

(1) ***3318.1* Application.** *Any person who wishes to ship fireworks including 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432)into this state shall submit an application for a license. Application shall be made as follows:*

(a) ***3318.1.1*** *The application shall be on the form provided by the state fire marshal and shall be accompanied by a fee of two thousand seven hundred fifty dollars.*

(b) ***3318.1.2*** *The application shall be accompanied by a certified copy or other copy acceptable to the state fire marshal of the applicant's license or permit issued in the applicant's state of residence, authorizing the applicant to engage in the manufacture, wholesale sale, or transportation of fireworks in that state.*

(c) ***3318.1.3*** *A statement by the applicant shall be attached to the application indicating that he understands and will abide by the rules adopted by the state fire marshal, pursuant to section 3743.58 of the Revised Code, for transporting fireworks, and that the applicant will ship all fireworks in accordance with the DOTn regulations.*

(2) ***3318.2* Issuance.** *The state fire marshal shall not issue an initial license or permit if the applicant for the license or permit, or any individual holding, owning, or controlling five per cent or greater beneficial or equity interest in the applicant for the license or permit, has been convicted of or pleaded guilty to a felony under the laws of this state, another state, or the United States. The state fire marshal shall revoke or deny renewal of a license or permit first issued under Chapter 3743. of the Revised Code on or after July 1, 1997, if the holder of the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the holder of the license or permit, is convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.*

(3) ***3318.3* Bill of lading.** *For each shipment of fireworks that is sent into this state, a copy of the bill of lading shall be submitted to the state fire marshal upon request, listing the type, amount and the destination.*

(4) ***3318.4* Possession.** *The holder of a shipping permit shall have an accurate copy of the permit in the holder's possession in this state at all times while in the course of shipping the fireworks directly into this state. A shipping permit is not transferable or assignable.*

(S) ***Section 3319 Requirements for an exhibitor's license***

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(1) ***3319.1 Categories of exhibitor licenses.*** *No person shall conduct a fireworks exhibition or flame effects exhibition in this state without a license issued by the state fire marshal. There shall be three categories of exhibitor licenses:*

(a) *A licensed exhibitor of outdoor/indoor fireworks (Type I).*

(b) *A licensed exhibitor of indoor fireworks (Type II).*

(c) *A licensed exhibitor of flame effects (Type III).*

(2) ***3319.2 Application.*** *Any person who wishes to be an exhibitor of indoor, outdoor, theatrical, or special effects fireworks or flame effects in this state shall submit an application as prescribed by the state fire marshal for an annual license and a license fee of fifty dollars.*

(a) ***3319.1.1*** *Applicants for a new exhibitor's license or a renewal of an existing license shall, upon request of the state fire marshal, provide the state fire marshal with certified copies, or other similar documentation, relating to the individual's civilian background check.*

(3) ***3319.3 Applicant.*** *An applicant for an exhibitor license shall be at least twenty-one years of age and shall submit proof of age satisfactory to the state fire marshal. The applicant shall be in compliance with Chapter 4123. of the Revised Code.*

(4) ***3319.4 Application period.***

(a) ***3319.4.1 New applications.*** *All applications for new exhibitor licenses shall be submitted and received in the office of the state fire marshal thirty days in advance of the requested examination. All applications shall be accompanied by a picture identification. The applicant shall designate the appropriate classification of licensed exhibitor on the application material submitted to the state fire marshal.*

(i) ***3319.4.1.1 Licensed exhibitor of indoor/outdoor fireworks (Type I).*** *Any individual who applies to be examined and licensed in the classification of a Type I fireworks exhibitor shall only be authorized to conduct the following fireworks exhibitions:*

(*a*) ***3319.4.1.1.1*** *An outdoor display exhibition of 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) in accordance with the provisions of Chapter 3743. of the Revised Code, this rule and NFPA 1123 and the applicable*

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requirements of NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.

(*b*) ***3319.4.1.1.2*** *An indoor display exhibition of 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) in accordance with NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

(ii) ***3319.4.1.2 Licensed exhibitor of indoor fireworks (Type II).*** *Any individual who applies to be examined and licensed as an exhibitor of indoor fireworks shall only be authorized to use 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) before a proximate audience in accordance with the provisions of Chapter 3743. of the Revised Code, this rule and NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code.*

(iii) ***3319.4.1.3*** ***Flame effects exhibitor.*** *Any individual who applies to be examined and licensed in the classification of a flame effects exhibitor shall only be authorized to operate flame effects before an audience in accordance with the provisions of this rule and NFPA 160 as listed in rule 1301:7-7-47 of the Administrative Code.*

(b) ***3319.4.2*** ***Renewal applications.*** *All applications for renewal of an exhibitor license shall be actually received in the office of the state fire marshal no later than the expiration date. Renewal applications actually received after the above required submittal dates shall be considered new applications and shall meet the examination requirement of paragraph* (T)(7)(3320.8) *of this rule. The state fire marshal shall revoke or deny the renewal of a license or permit issued under Chapter 3743. of the Revised Code after July 1, 1997.*

(i) ***3319.4.2.1*** *The holder of the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the holder of the license or permit, is convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.*

(ii) ***3319.4.2.2*** *The licensed exhibitor failed to provide the information required by the application form prescribed by the state fire marshal.*

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(iii) ***3319.4.2.3*** *The application materials were not accompanied by the requisite fee.*

(iv) ***3319.4.2.4*** *The exhibitor is not twenty-one years of age.*

(v) ***3319.4.2.5*** *The application for renewal of an exhibitor license is not actually received in the office of the state fire marshal by the expiration date.*

(vi) ***3319.4.2.6*** *The application for the renewal is not accompanied by the documentation evidencing compliance with the continuing education requirements in accordance with paragraph* (M)(3)(c)(3313.3.3) *of this rule.*

(5) ***3319.5*** ***Fees for application.*** *Application fees for exhibitors are nonrefundable. The application fee is forfeited to the state fire marshal when the applicant fails to meet the requirements of Chapter 3743. of the Revised Code or the "Ohio Fire Code," when an applicant fails to achieve a passing grade on any examination, or when an applicant fails to reapply for a repeat examination. The fee under such circumstances shall be deemed necessary for the processing of the application, and the administering of the examination of the applicant. Said fee shall be deposited into the state fire marshal's rotary fund. The state fire marshal shall also assess the applicant any fee charged by the superintendent of the bureau of criminal identification and investigation for the results of a background check.*

(6) ***3319.6*** ***Qualification requirements.*** *Every applicant for a new exhibitor license shall submit with his application one of the following or such applicant shall be denied an exhibitor license pursuant to Chapter 119. of the Revised Code:*

(a) ***3319.6.1*** *Written documentation of the applicant's proficiency in handling and discharging fireworks, and that the applicant is capable of handling the responsibilities associated with exhibitions as prescribed by paragraph* (H)(3308) *of this rule, in a manner that emphasizes the safety and security of the public. The above documentation shall be endorsed by the signature of a licensed exhibitor, manufacturer or wholesaler of fireworks in Ohio. If an endorsement signature of a licensed exhibitor, manufacturer or wholesaler in Ohio is not provided, the state fire marshal may require additional documentation demonstrating that the applicant has safely conducted as appropriate, 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) and flame effects exhibitions in Ohio, indicating the date, location, and type of exhibition.*

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(b) ***3319.6.2*** *A certified copy or other copy acceptable to the state fire marshal of a valid license issued by another state authorizing the fireworks exhibitor to conduct all types of fireworks exhibitions and discharging any and all types as appropriate, 1.1G fireworks (UN0333), 1.2G fireworks (UN0334), 1.3G fireworks (UN0335), 1.4G fireworks (UN0336), 1.4G special effects fireworks (UN0431), 1.4S fireworks (UN0337) or 1.4S special effects fireworks (UN0432) and flame effects in that state.*

(c) ***3319.6.3*** *Written documentation demonstrating competency by experience or training in the operation of flame effects.*

(7) ***3319.7*** ***Examination requirements.*** *Every applicant for a new exhibitor license shall take and pass a written examination administered by the state fire marshal prior to the issuance of the license. If an applicant has been notified of a scheduled examination and fails to appear without just cause in writing, such applicant shall be denied an exhibitor license pursuant to Chapter 119. of the Revised Code.*

(a) ***3319.7.1*** *The state fire marshal shall not issue an initial license or permit under Chapter 3743. of the Revised Code if the applicant for the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license or permit, has been convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.*

(8) ***3319.8*** ***Examination.*** *The written examination required by this rule for a fireworks exhibitor license shall consist of questions pertaining to laws relating to fireworks, rules relating to fireworks, and relevant safety practices and procedures. The written examination for a flame effect exhibitor license shall consist of questions relating to the proper operation of flame effects before an audience and relevant safety practices and procedures.*

(a) ***3319.8.1*** *To satisfactorily pass the written examination, the applicant must obtain a minimum grade of seventy per cent or such applicant shall be denied an exhibitor license pursuant to Chapter 119. of the Revised Code.*

(b) ***3319.8.2*** *Any applicant who has failed the examination may reapply and take another examination not less than thirty days after the date of the previous examination.*

(c) ***3319.8.3*** *Any applicant who has failed the repeat examination may reapply and take another examination not less than ninety days from the date of the previous examination.*

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(d) ***3319.8.4*** *Applicants reapplying to take a repeat examination shall file a new application and a license fee as required in paragraph (T)(1)(3320.1) of this rule.*

(9) ***3319.9*** ***Location of examination.*** *The examination required by this rule shall be administered at locations, dates, and times as designated by the state fire marshal.*

(10) ***3319.10*** ***Employee registration.*** *Each fireworks exhibitor licensed under section 3743.51 of the Revised Code shall register with the state fire marshal all employees who assist the licensed exhibitor in conducting fireworks exhibitions unless such employees have already been registered by another licensed exhibitor. The employees must be registered with the state fire marshal at least fourteen days prior to assisting the licensed exhibitor in conducting a fireworks exhibition. Individuals involved only in the setup or clean up of the discharge site before or after the exhibition and do not handle 1.3G fireworks, are not required to be registered. The state fire marshal shall maintain a record of licensed exhibitors and registered employees and make it available, upon request, to any law enforcement agency. A licensed exhibitor shall file an application, on a form prescribed by the state fire marshal, to register a new employee not later than seven days after the date on which the employee is hired unless the employee is already registered.*

Exception: *Any individual that is a valid Ohio licensed exhibitor of fireworks pursuant to the provisions of this rule who wishes to act as an employee of another properly licensed exhibitor is not required to be registered pursuant to this paragraph.*

(a) ***3319.10.1*** ***Registration requirements.*** *The state fire marshal shall not register a person under this paragraph unless the following requirements have been satisfied.*

(i) ***3319.10.1.1*** ***Registration fee.*** *Each application to register an employee of a licensed exhibitor of fireworks, regardless of time of registration as provided for in paragraph* (T)(9)(f)(i)(3320.9.6.1) *of this rule shall be accompanied by a nonrefundable registration fee of twenty-five dollars. The state fire marshal shall also assess the applicant any fee charged by the superintendent of the bureau of criminal identification and investigation for the results of a background check.*

(ii) ***3319.10.1.2*** ***Background check.*** *No person shall be registered under this paragraph if the individual has been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States. All persons seeking to be registered under this*

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paragraph shall provide fingerprint or similar identifying information, and complete a civilian background check for criminal history as administered or approved by the state fire marshal. The state fire marshal may accept a currently valid certificate of clearance or other similar documentation issued by the bureau of alcohol, tobacco, firearms and explosives as satisfactory documentation of a person's criminal history. Applicants shall, upon request of the state fire marshal, provide the state fire marshal with certified copies, or other similar documentation, relating to the individual's civilian criminal background check.

(b) ***3319.10.2 Application.*** *Each application filed with the state fire marshal to register an employee of a licensed exhibitor of fireworks shall be accompanied by:*

(i) ***3319.10.2.1*** *Proof of age satisfactory to the state fire marshal verifying the employee is at least eighteen years of age.*

(ii) ***3319.10.2.2*** *Verification of the completion of a minimum of three hours of in-service education in the safe operation of a public display. Verification includes any of the following:*

(*a*) *A signed statement from the licensed exhibitor on a form including the information as prescribed by the state fire marshal;*

(*b*) *Any other information as requested by the state fire marshal.*

(iii) ***3319.10.2.3*** *Documentation of the completed civilian background check as required by this rule.*

(c) ***3319.10.3 Qualification requirements.*** *The application for employee registration shall be denied by the state fire marshal when any of the following occur:*

(i) ***3319.10.3.1*** *The licensed fireworks exhibitor fails to provide the information required by the application form prescribed by the state fire marshal or as otherwise required by this paragraph;*

(ii) ***3319.10.3.2*** *The application materials were not accompanied by the requisite fee;*

(iii) ***3319.10.3.3*** *The employee to be registered is not eighteen years of age;*

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(iv) ***3319.10.3.4*** *The employee to be registered has been convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.*

(d) ***3319.10.4*** ***Effective dates of registration.*** *Employee registrations under this rule shall not be effective until the proper issuance of documentation by the state fire marshal.*

(e) ***3319.10.5*** ***Proof of registration.*** *Each registered assistant shall carry the proof of registration issued by the state fire marshal while assisting the licensed exhibitor in conducting a fireworks exhibition and shall make it available to any fire or law enforcement official upon request.*

(i) ***3319.10.5.1*** *Each registered assistant shall display prominently upon their person any visible identification required by the fire code official at all times when within the discharge perimeter.*

(f) ***3319.10.6*** ***Registration expiration.*** *After the effective date of this rule, each registration shall be for a period of one year unless otherwise provided for in this paragraph.*

(i) ***3319.10.6.1*** *The registration of an employee may occur at any of the following times:*

(*a*) ***3319.10.6.1.1*** *In conjunction with an initial exhibitor application;*

(*b*) ***3319.10.6.1.2*** *Initial employee registration in accordance with paragraph* (S)(9)(3319.9) *of this rule;*

(*c*) ***3319.10.6.1.3*** *An application for exhibitor renewal in accordance with paragraph* (S)(3)(b)(3319.3.2) *of this rule.*

(ii) ***3319.10.6.2*** *If the time of employee registration occurs pursuant to paragraph* (S)(9)(f)(i)(b)(3319.9.6.1.2) *of this rule, the period of such employee's registration shall be limited to a period no longer than the remaining portion of the registering exhibitor's license.*

(iii) ***3319.10.6.3*** *Each application for registration shall be prescribed by the state fire marshal and accompanied by the registration fees, proof of age, and verification of in-service education as required for initial registration in accordance with this paragraph. Any such subsequent registration may be denied pursuant to paragraph* (S)(9)(c)(3319.9.3) *of this rule.*

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(g) ***3319.10.7*** *Any change in employee registration information submitted to the state fire marshal other than during the exhibitor's renewal application period described in paragraph* (S)(9)(f)(3319.9.6) *of this rule shall be accompanied by a fee equivalent to the registration fees prescribed in paragraph* (S)(9)(a)(3319.9.1) *of this rule.*

(T) ***Section 3320 Fire safety requirements in buildings***

(1) ***3320.1 General.*** *The layout, arrangement and construction of buildings and structures in which fireworks are manufactured, processed, stored, and offered for sale, shall comply with the applicable requirements of the "Ohio Building Code" as listed in rule 1301:7-7-47 of the Administrative Code, for the appropriate high hazard occupancy use group classification, and shall be provided with fire protection, fire extinguishing equipment and explosion relief venting as required by the "Ohio Building Code" as listed in rule 1301:7-7-47 of the Administrative Code.*

(a) ***3320.1.1*** *Buildings and structures and their service equipment shall be maintained and operated as required by this rule, NFPA 1123 and NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code.*

(b) ***3320.1.2*** *In addition to the provisions of this paragraph, fireworks retail and representative sales showrooms shall comply with paragraph* (U)(3321) *of this rule.*

(2) ***3320.2*** *If, during the effective period of its licensure, a licensed manufacturer or wholesaler wishes to perform any construction, locate or relocate any buildings or structures, or make any structural change or renovation, on the licensed premises, the state fire marshal and the building code official shall be notified in writing.*

(a) ***3320.2.1*** *The state fire marshal may require the submission of documentation, including, but not limited to, plans covering the proposed construction or structural change, location or relocation or renovation or change in manufacturing, if the state fire marshal determines such documentation is necessary for evaluation purposes prior to the issuance of a preliminary authorization for construction.*

(b) ***3320.2.2*** *Upon receipt of the notification and additional documentation required by the state fire marshal, the state fire marshal shall issue a preliminary authorization for construction and shall inspect the premises to determine if the proposed construction or structural change, location or relocation, or renovation or change in manufacturing is in accordance with Chapter 3743. of the Revised Code and the rules adopted by the state fire marshal.*

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(i) ***3320.2.2.1*** *When the licensee submits construction documents and preliminary authorization for construction to the building official having jurisdiction and obtains a set of construction documents approved by the building official, a copy of such approved documents shall be submitted to the state fire marshal by the licensee.*

(c) ***3320.2.3*** *Upon the inspection and a review of the submitted documentation, if the state fire marshal determines that the construction, location, relocation, structural change or renovation or change in manufacturing conforms to Chapter 3743. of the Revised Code and the rules adopted by the state fire marshal, the state fire marshal shall issue a final written authorization for the construction, location, relocation, structural change or renovation or change in manufacturing.*

(d) ***3320.2.4*** *No construction, relocation, structural change or renovation shall commence until the licensee has received the final written authorization issued by the state fire marshal.*

(3) ***3320.3*** ***Building requirements.*** *For every structure on a licensed premises, each required means of egress shall be accessible in accordance with the building code as listed in rule 1301:7-7-47 of the Administrative Code and any newly installed or modified exit door assembly shall be provided with panic hardware.*

(4) ***3320.4*** ***Separation distances.*** *Each structure on a licensed premises shall comply with the separation distance requirements of NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code.*

(a) ***3320.4.1*** *A building used by a licensed manufacturer or licensed wholesaler need not comply with any requirements of paragraph* (U)(3321) *of this rule which concern the structure of a building or with the distance requirements of division* (G) *of section 3743.06 or division* (H) *of section 3743.19 of the Revised Code if the building was erected on or before May 30, 1986, and was legally being used for fireworks activities under authority of a valid license issued by the state fire marshal as of December 1, 1990, pursuant to sections 3743.03, 3743.04, 3743.16, and 3743.17 of the Revised Code.*

(5) ***3320.5*** ***Safety requirements.*** *Each structure on a licensed premises shall have and maintain floor plans showing occupancy load limits and internal circulation and egress patterns that are approved by the state fire marshal and the*

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superintendent of the division of industrial compliance that are submitted under seal as required by section 3791.04 of the Revised Code.

(6) ***3320.6* Smoking.** *Smoking or the carrying of pipes, cigarettes, or cigars, matches, lighters, other flame-producing items, or open flame on, or the carrying of a concealed source of ignition into, the premises of a wholesaler or fireworks plant is prohibited, except that a wholesaler or manufacturer may permit smoking on a licensed premises only in specified lunchrooms and/or restrooms in buildings and other structures in which no manufacturing, handling, sales, or storage of fireworks takes place. "No Smoking" signs shall be posted on the premises as required by the state fire marshal.*

(7) ***3320.7* Doors.** *All exit doors of all buildings on the licensed premises shall swing outward.*

(U) ***Section 3321 Fireworks storage***

(1) ***3321.1*** *All fireworks and pyrotechnic devices shall be stored and maintained in compliance with the provisions of the Revised Code, paragraphs* (T)(1)(3320.1) and (U)(3321) *of this rule and in accordance with the provisions of NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code. To the extent not addressed by the Revised Code, paragraphs* (T)(1)(3320.1) *and* (U)(3321) *of this rule and NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code, fireworks storage must also be in accordance with paragraph* (D)(3304) *of this rule. All licensed manufacturer and wholesalers shall store fireworks only on the licensed premises or on an approved storage location that is part of a licensed premises.*

(2) ***3321.2*** *"1.3G" fireworks, black powder, and other raw bulk explosive materials shall be stored in magazines in accordance with the provisions of this rule.*

(3) ***3321.3* Trailers and magazines for the storage of fireworks.** *Fireworks may be stored in trailers if the trailers are properly enclosed, secured, placarded, and grounded and are separated from any structure to which the public is admitted by a distance that will allow fire-fighting equipment to have full access to the structures on the licensed premises in accordance with rule 1301:7-7-05 of the Administrative Code or as approved in writing by the local fire code official. In no instance shall trailers used for the storage of fireworks be located at a distance less than the minimum separation distances specified in NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code. Such trailers may be moved into closer proximity to any structure only to accept or discharge cargo for a period not to exceed forty-eight hours. Only two such trailers may be placed in such closer proximity at any one time. At no time may trailers be used for conducting sales of any class of fireworks. Members of the public shall be prohibited from access to the contents of any storage trailers at all times. Trailers and magazines used for the storage of fireworks shall be completely enclosed with an approved*

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steel chain link fence or similar barrier at least 6 feet high. The state fire marshal shall approve the installation and location of such fences or similar barriers. The installation and location of such fences or similar barriers shall properly maintain the required fire department access and properly prohibit unauthorized public access. Such fences or similar barriers shall be separated from all storage trailers and magazines containing fireworks by at least 10 feet and shall have a gate that is locked and secured against unauthorized entry.

(a) ***3321.3.1*** *The storage of any 1.3G fireworks in semi-trailers is limited to the normal loading and unloading of shipments of fireworks that have been shipped in accordance with DOTn regulations.*

Exception: *Semi-trailers which have been converted to a magazine approved for the storage of explosive materials.*

(b) ***3321.3.2*** *Fireworks may be stored in trailers at approved storage locations only in accordance with the provisions of sections 3743.04* (J) *and 3743.17* (H) *of the Revised Code and this rule.*

(V) ***Section 3322 Fireworks showrooms***

(1) ***3322.1 General requirements.***

(a) ***3322.1.1 Applicability limitations.*** *The provisions of paragraph* (U)(3322) *of this rule concerning the structure of the buildings used on a licensed premises or with the distance requirements of division* (G) *of section 3743.06 or division* (H) *of section 3743.19 of the Revised Code does not apply to buildings that were erected on or before May 30, 1986 and were occupied by a licensed manufacturer or wholesaler with a license for that location prior to December 1, 1990.*

(b) ***3322.1.2 Safety provisions.*** *The safety requirements established in division* (C) *of section 3743.25 of the Revised Code and paragraph* (T)(3320) *of this rule are not subject to any variance, waiver or exclusion pursuant to Chapter 3743. of the Revised Code or any applicable building code.*

(c) ***3322.1.3 Number of sales structures.*** *Each licensed premises shall only contain one sales structure.*

(d) ***3322.1.4 Public access.*** *The only structures, or portions thereof, on a licensed premises that the public may enter are approved retail sales or*

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representative sample showrooms meeting the provisions of this rule. The public is prohibited from accessing any other structures, buildings, magazines or storage trailers on the licensed premises.

(e) ***3322.1.5 Age limitations.*** *No person shall sell fireworks of any kind to a person under eighteen years of age. No person under eighteen years of age shall enter a fireworks sales showroom unless that person is accompanied by a parent, legal guardian, or other responsible adult. No person under eighteen years of age shall touch or possess fireworks on a licensed premises without the consent of the licensee. A licensee may eject any person from a licensed premises that is in any way disruptive to the safe operation of the premises.*

(f) ***3322.1.6 Safety officer.*** *A uniformed safety officer shall be present at all times that any fireworks building is open to the public during the period commencing fourteen days before, and ending two days after, each fourth of July. The officer shall be highly visible, stationed at the showroom entrance, and shall enforce the provisions of Chapter 3743. of the Revised Code and any applicable fire and building codes, including but not limited to maximum occupancy load and no smoking regulations to the extent the officer is authorized by law, and be one of the following:*

(i) *A deputy sheriff;*

(ii) *A law enforcement officer of a municipal corporation, township, or township or joint township police district;*

(iii) *A private uniformed security guard registered under section 4749.06 of the Revised Code.*

(g) ***3322.1.7 Fuses.*** *If any fireworks item is removed from its original package or is manufactured with any fuse other than a safety fuse approved by the consumer product safety commission, then the item shall be covered completely by repackaging or bagging or it shall otherwise be covered so as to prevent ignition prior to sale.*

(h) ***3322.1.8 Location requirements.*** *All retail sales and representative sample showrooms shall be located on grade level only.*

(i) ***3322.1.9 Occupant load.*** *A sufficiently sized and legible copy of the approved maximum occupant load shall be prominently posted within every retail sales or representative sales showroom structure near the main entrance.*

(2) ***3322.2 Construction and maintenance requirements.***

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(a) ***3322.2.1 General.***

(i) ***3322.2.1.1 Awnings and tents.*** *Awnings and tents shall not be used as facilities for the sale or storage of fireworks. An awning or tent attached to a retail sales or representative sample showroom may be used for storing nonflammable shopping convenience items such as shopping carts or baskets or for providing a shaded area for patrons waiting to enter the public sales area.*

(ii) ***3322.2.1.2 Fire protection systems.*** *Each fire alarm, fire detection, smoke control, fire suppression or other fire protection system installed in each building on the licensed premises shall be inspected, tested and maintained in an operable condition in accordance with the requirements of the Revised Code and the building code as listed in rule 1301:7-7-47 and this code.*

(*a*) *If any fire alarm, fire detection, smoke control or other fire protection system, or critical component of any such systems, is not functioning or has been turned off for repair or maintenance, the building shall be closed to members of the public unless the state fire marshal approves a fire watch while the system is being repaired or maintained.*

(*b*) *Suppression system. A fire suppression system as defined in section 3781.108 of the Revised Code may be turned off only for repair, drainage of the system to prevent damage by freezing during the period of time, approved by the state fire marshal, that the facility is closed to all public access during the winter months, or maintenance of the system. If any repair or maintenance is necessary during the times when the facility is open for public access and business as approved by the state fire marshal, the licensee shall notify in advance the state fire marshal, the appropriate insurance company and fire chief or fire prevention officer regarding the nature of the maintenance or repair and the time when it will be performed.*

(*c*) *If any fire suppression system as defined in section 3781.108 of the Revised Code is not functioning or has been turned off for repair or maintenance, the fireworks wholesale showroom shall be closed to members of the public unless the state fire marshal approves a fire watch while the system is being repaired or maintained.*

(iii) ***3322.2.1.3 Separation.*** *All fireworks sales structures shall be separated by construction or distance from the storage facilities.*

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Storage areas for fireworks that are in the same building where fireworks are displayed and sold to the public shall be separated from the areas to which the public has access by an appropriately rated fire wall in accordance with the building code as listed in rule 1301:7-7-47 of the Administrative Code. If the licensee installs and properly maintains a sprinkler system that utilizes early suppression fast response sprinkler heads throughout the structure and the sprinkler system is designed and installed in compliance with NFPA 13 as listed in rule 1301:7-7-47 of the Administrative Code, a fire barrier wall may be substituted for a fire wall between the areas to which the public has access and the storage portions within the structure.

(iv) ***3322.2.1.4 Storage.*** *All licensed premises shall have an approved storage building, structure or magazine located on the premises as required by the provisions of this rule. A license shall not be issued to any manufacturer or wholesaler for a showroom area that does not have an approved storage building, structure or magazine that meets the provisions of this rule.*

(3) ***3322.3 Retail sales showroom.***

(a) ***3322.3.1 Retail sales showroom safety requirements.*** *A licensed manufacturer or wholesaler shall bring retail sales showroom structures, to which the public may have access and in which employees are required to work, on all licensed premises, into compliance with the following safety requirements:*

(i) ***3322.3.1.1 Fire protection systems.*** *A retail sales showroom that is constructed, undergoes major alteration or upon which expansion is undertaken on and after June 30, 1997, shall be equipped with interlinked fire detection, fire suppression, smoke exhaust, and smoke evacuation systems that are approved by the superintendent of the division of industrial compliance in the department of commerce. The fire suppression system shall be a wet sprinkler system designed and installed in accordance with NFPA 13 as listed in rule 1301:7-7-47 of the Administrative Code.*

A fireworks showroom structure that exists on July 1, 1997, shall be retrofitted on or before June 1, 1998, with interlinked fire detection, smoke exhaust, and smoke evacuation systems that are approved by the superintendent of the division of industrial compliance. If meeting these retrofitting requirements would constitute an extreme financial hardship that would force a licensee to terminate business operations, the licensee shall

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conduct sales only on the basis of defused representative samples in closed and covered displays within the fireworks showroom.

(ii) ***3322.3.1.2 Maximum size.*** *A retail sales showroom that first begins to operate on or after June 30, 1997, and to which the public has access for retail purposes shall not exceed five thousand square feet in floor area.*

(iii) ***3322.3.1.3 Floor plans.*** *A newly constructed or existing fireworks showroom structure that existed on September 23, 2008, but that is constructed, altered or added to in a manner requiring the submission of plans, drawings, specifications, or data pursuant to section 3791.04 of the Revised Code, shall comply with a graphic floor plan layout that is approved by the state fire marshal and superintendent of the division of industrial compliance showing width of aisles, parallel arrangement of aisles to exits, number of exits per wall, maximum occupancy load, evacuation plan for occupants, height of storage or display of merchandise, and other information as may be required by the state fire marshal and superintendent.*

(iv) ***3322.3.1.4 Egress plans.*** *A fireworks showroom structure that exists on June 30, 1997, shall be in compliance on or after June 30, 1997, with floor plans showing occupancy load limits and internal circulation and egress patterns that are approved by the state fire marshal and superintendent of industrial compliance, and that are submitted under seal as required by section 3791.04 of the Revised Code.*

(*a*) *A sufficiently sized and legible copy of the approved egress floor plan shall be prominently posted within the showroom structure near the main entrance.*

(*b*) *Any proposed change to the approved egress floor plan shall be submitted to the state fire marshal and superintendent of the division of industrial compliance for approval. Changes shall not be made to aisle widths, egress patterns, location or overall height of showroom fixtures or other elements of the approved egress floor plan without first obtaining the written approval of the state fire marshal and superintendent of the division of industrial compliance.*

(v) ***3322.3.1.5 Occupancy load.*** *The maximum occupant load for any retail sales showroom shall not exceed one occupant per sixty square feet of gross floor area. The maximum occupant load may*

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be increased to one occupant per thirty square feet of gross floor area if both of the following conditions are satisfied:

(*a*) *A minimum of one means of egress approved by the building official and the state fire marshal is provided for each twenty-five occupants or fraction thereof.*

(*b*) *A minimum of three means of egress approved by the building official and the state fire marshal are located to provide direct access in separate directions from any point in the area served so as to minimize the possibility that adequate exit capacity would be blocked by any one fire or other emergency condition.*

(4) ***3322.4 Representative sample showroom.*** *A licensed premises may contain one structure or portions thereof, to which the public may have access for the purpose of conducting sales from a representative sample showroom. All such representative sample showrooms shall be:*

(a) ***3322.4.1 Occupancy.*** *Constructed, altered and maintained in accordance with the building code as listed in rule 1301:7-7-47 of the Administrative Code for a use and occupancy group that permits mercantile sales and this code and approved by the building official having jurisdiction over the subject facility via a valid certificate of occupancy and the state fire marshal for such use.*

(b) ***3322.4.2 Notice.*** *Prior to any such construction, alteration, or use of a structure, or portion thereof, for public view of product representations, the licensee shall notify the state fire marshal in writing of the intent to alter, construct or utilize a structure, or portion thereof, for public viewing of product representations and obtain authorizations for such use and for the construction of or alteration of such structures, or portions thereof, in accordance with paragraph* (T)(3320.2) *of this rule.*

(c) ***3322.4.3*** *Operated in accordance with the certificate of occupancy, the use group classifications and maximum occupant load requirements of the building code as listed in rule 1301:7-7-47 of the Administrative Code, this code, and the approval described in this paragraph.*

(d) ***3322.4.4*** *A representative sample showroom shall not contain any pyrotechnics, pyrotechnic materials, explosives, explosive materials, fireworks, or any similar hazardous materials or substances. When the public has access to a representative sample showroom, such structures or portions thereof may only contain a product representation that consists of paper materials, packaging materials, catalogs, photographs or similar*

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product depiction. The public may not access any other portions of such structures.

(e) **3322.4.5** A representative sample showroom shall be used only for the public viewing of firework product representations, including paper materials, packaging materials, catalogs, photographs, or other similar product depictions.

(5) ***3322.5 Sales. General.***

(a) ***3322.5.1 Sales from a licensed building.*** *At no time shall a licensed manufacturer or wholesaler sell any class of fireworks outside a licensed building. A licensed manufacturer or wholesaler shall only sell 1.4G fireworks from a representative sample showroom or a retail sales showroom. The sale of fireworks from a storage building or magazine is prohibited and the general public shall be prohibited from such areas.*

(b) ***3322.5.2*** *The sale of fireworks from motor vehicles is prohibited.*

(c) ***3322.5.3 Sales from a representative sample showroom.*** *The delivery of product to a purchaser of fireworks at a licensed premises that has a representative sample showroom structure shall not occur inside any structure on a licensed premises, but shall occur on the licensed premises.*

(d) ***3322.5.4 Retail sales.*** *A retail sale includes the transfer of the possession of the 1.4G fireworks from the licensed manufacturer or wholesaler to the purchaser of the fireworks.*

All retail sales of 1.4G fireworks by a licensed manufacturer or wholesalers shall only occur from the inside of an approved retail sales showroom or a representative sample showroom, located on a licensed premises and from no other structure or device outside a licensed building.

(e) ***3322.5.5 Wholesale sales.*** *All wholesale sales of fireworks by a licensed manufacturer or wholesaler shall only occur from a licensed premises to persons who intend to resell the fireworks purchased at wholesale. A wholesale sale by a licensed manufacturer or wholesaler may occur as follows:*

(i) *The direct sale and shipment of fireworks to a person outside of this state;*

(ii) *From an approved retail sales showroom as described in this paragraph;*

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(iii) *From a representative sample showroom as described in this paragraph;*

(iv) *By delivery of wholesale fireworks to a purchaser at a licensed premises outside of a structure or building on that premises. All other portions of the wholesale sales transaction may occur at any location on a licensed premises.*

(v) *Any other method as described in this rule.*

(W) ***Section 3323 Fireworks wholesale and retail business hours***

(1) ***3323.1 Waiver.*** *An application from a licensed wholesaler to waive the business hour requirements of division (H) of section 3743.19 of the Revised Code shall contain all of the following information:*

(a) ***3323.1.1*** *The name, address, and license number of the wholesaler.*

(b) ***3323.1.2*** *The reason for closing the business.*

(c) ***3323.1.3*** *The exact date the business will be closed and the exact date the business will reopen.*

(d) ***3323.1.4*** *An inventory list of the fireworks that will be stored on the premises during the time that the business is closed.*

(e) ***3323.1.5*** *A name, telephone number and address where the licensed wholesaler may be contacted in the event of an emergency.*

(f) ***3323.1.6*** *The name, address and telephone number of a responsible person who shall have access and keys to all buildings on the premises.*

(g) ***3323.1.7*** *The manner in which the building(s) and site have been secured to prevent trespassing, theft, or unauthorized entry into the building(s) or structure(s).*

(h) ***3323.1.8*** *The name and signature of the local fire official and law enforcement officer who have been notified of the anticipated closing date.*

(i) ***3323.1.9*** *The name and signature of the fire and buildings officials who have been notified if the fire suppression system is to be turned off while the facility is closed.*

(2) ***3323.2*** *If a licensed wholesaler is granted a waiver pursuant to this paragraph and the wholesaler reopens the premises listed in the waiver for fireworks sales prior to the expiration date of the waiver period, the licensed wholesaler shall*

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notify in writing the state fire marshal, local fire official and the local law enforcement officer of the date the wholesaler reopens.

(3) ***3323.3*** *If a licensed wholesaler reopens pursuant to paragraph* (W)(2)(3323.2) *of this rule, any waiver granted to the wholesaler under this paragraph shall automatically expire.*

(X) ***Section 3324 Storage locations***

(1) ***3324.1*** *A licensed manufacturer or wholesaler may expand its licensed premises within the state to include not more than two storage locations that are located upon one or more real estate parcels that are noncontiguous to the license premises as that licensed premises exists on the date a licensee submits an application as described below, if all of the following apply:*

(a) ***3324.1.1*** *The licensee submits an application to the state fire marshal and an application fee of one hundred dollars per storage location for which the licensee is requesting approval.*

(b) ***3324.1.2*** *The identity of the holder of the license remains the same at the storage location.*

(c) ***3324.1.3*** *The storage location has received a valid certificate of zoning compliance as applicable and a valid certificate of occupancy for each building or structure at the storage location issued by the authority having jurisdiction to issue the certificate for the storage location, and those certificates permit the distribution and storage of fireworks regulated under this rule at the storage location and in the buildings or structures. The storage location shall be in compliance with all other applicable federal, state, and local laws and regulations.*

(d) ***3324.1.4*** *Every building or structure located upon the storage location is separated from occupied residential and nonresidential buildings or structures, railroads, highways, or any other buildings or structure on the licensed premises in accordance with the distances specified in these rules.*

(e) ***3324.1.5*** *Neither the licensee nor any person holding, owning, or controlling a five per cent or greater beneficial or equity interest in the licensee has been convicted of or pleaded guilty to a felony under the laws of this state, any other state, or the United States, after September 29, 2005.*

(f) ***3324.1.6*** *The state fire marshal approved the application for expansion.*

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(2) ***3324.2*** ***Permitted uses of storage location.*** *The storage location shall be considered part of the original licensed premises and shall use the same distinct number assigned to the original licensed premises with any additional designations as the state fire marshal deems necessary in accordance with section 3743.03 of the Revised Code.*

(3) ***3324.3*** *A licensee who obtains approval for the use of a storage location in accordance with division* (I) *of section 3743.04 of the Revised Code shall use the storage location exclusively for the following activities, in accordance with this rule:*

(a) ***3324.3.1*** *Packaging, assembling, or storing of fireworks, by a licensed manufacturer, which shall only occur in buildings or structures approved for such hazardous uses by the building code official having jurisdiction for the storage location or, for 1.4G fireworks, in containers or trailers approved for such hazardous uses by the state fire marshal if such containers or trailers are not subject to regulation by the building code as listed in rule 1301:7-7-47 of the Administrative Code. All such storage shall be in accordance with NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code.*

(b) ***3324.3.2*** *Distributing fireworks to other parcels of real estate located on the manufacturer's licensed premises, to licensed wholesalers or other licensed manufacturers in this state or to similar licensed persons located in another state or country.*

(c) ***3324.3.3*** *Distributing fireworks to a licensed exhibitor of fireworks pursuant to a properly issued permit in accordance with this rule.*

(4) ***3324.4*** *A licensee who obtains approval for the use of a storage location in accordance with division* (G) *of section 3743.17 of the Revised Code shall use the storage location exclusively for the following activities, in accordance with this rule:*

(a) ***3324.4.1*** *Packaging, assembling, or storing fireworks, by a licensed wholesaler, which shall occur only in buildings or structures approved for such hazardous uses by the building code official having jurisdiction for the storage location or, for 1.4G fireworks, in containers or trailers are not subject to regulation by the building code as listed in rule 1301:7-7-47 of the Administrative Code. All such storage shall be in accordance with NFPA 1124 as listed in rule 1301:7-7-47 of the Administrative Code.*

(b) ***3324.4.2*** *Distributing fireworks to other parcels of real estate located on the manufacturer's licensed premises, to licensed wholesalers or other licensed manufacturers in this state or to similarly licensed persons located in another state or country.*

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(c) ***3324.4.3*** *Distributing fireworks to a licensed exhibitor of fireworks pursuant to a properly issued permit in accordance with this rule.*

(5) ***3324.5*** ***Limitations on sales activity at a storage location.*** *A licensed manufacturer or wholesaler shall not engage in any sales activity, including the retail sale of fireworks otherwise permitted under division* (C)(2) *or* (C)(3) *of section 3743.04 of the Revised Code or pursuant to section 3743.44 or 3743.45 of the Revised Code, at the storage location approved in accordance with this rule.*

(6) ***3324.6*** ***Prohibitions against public access.*** *Each licensee responsible for a storage location shall prohibit public access to the storage location in accordance with this code.*

(a) ***3324.6.1*** *Storage locations shall be secured against unauthorized entry and safeguarded against inappropriate public access.*

(i) ***3324.6.1.1*** *Manufacturer's storage locations consisting only of approved trailers or similar approved structures shall include provisions that preclude public access by providing a 6 foot high chain link fence a minimum of 10 feet from such trailer or structure that completely surrounds the trailer or similar structure in such a manner as to prohibit public access (or equivalent means) as approved by the state fire marshal.*

(ii) ***3324.6.1.2*** *Storage locations consisting only of storage buildings shall include provisions that preclude public access to all storage and use areas where fireworks are stored or present within such storage buildings including but not limited to, proper separation assemblies with approved locks and security devices. All such security measures and installation of locks or devices shall be in accordance with the building code as listed in rule 1301:7-7-47 of the Administrative Code and approved by the state fire marshal.*

(iii) ***3324.6.1.3*** *Storage locations consisting of buildings, structures and trailers shall include provisions that preclude public access by means of fences, proper separation assemblies, locks, security devices, or equivalent means to prevent accidental or intentional contact with the fireworks present at the storage location, in accordance with the provisions of this paragraph, the building code as listed in rule 1301:7-7-47 of the Administrative Code, and this code as approved by the state fire marshal.*

(b) ***3324.6.2*** *The public shall not access a storage location unless such access is otherwise permitted by this rule.*

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(7) ***3324.7*** *A storage location approved by the state fire marshal in accordance with divisions (G) and (I) of section 3743.04 of the Revised Code may not be relocated for a minimum period of five years.*

(Y) ***Section 3325 Sale of fireworks***

(1) ***3325.1* Purchaser form.** *The purchaser form for each retail or wholesale sale of fireworks to both residents and non-residents of this state shall be prescribed by the state fire marshal and provided by the seller to each purchaser. A copy of the purchaser form utilized by each seller shall be provided to the state fire marshal upon request. The form shall include, but not be limited to, the following information:*

(a) *The purchaser's name and address;*

(b) *The date of the purchase;*

(c) *A statement that the purchaser acknowledges that the purchaser is responsible for any illegal use of the fireworks, including any damages caused by their improper use;*

(d) *For a sale to a manufacturer, the name of the state and number of the purchaser's license or permit from that state or other verifying information authorizing the purchaser to manufacture;*

(e) *For a sale to a wholesaler, the name of the state and the number of the purchaser's license or permit from that state or other verifying information authorizing the purchaser to sell at wholesale;*

(f) *For a sale to an exhibitor from another state, the name of the state and the number of the purchaser's license or other verifying information authorizing the purchaser to conduct fireworks exhibitions, and, if applicable the permit information for the exhibition for which the fireworks are being purchased;*

(g) *For a sale at retail to an individual other than a wholesaler, manufacturer or exhibitor, the number of the purchaser's motor vehicle operator's license or other valid state issued identification card;*

(h) *The purchaser's signature;*

(i) *A statement printed in bold letters indicating that knowingly making a false statement on the purchaser's form is falsification under section 2921.13 of the Revised Code and is a misdemeanor of the first degree; and*

(j) *Such other information as the state fire marshal may require.*

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(2) ***3325.2* Purchaser responsibilities.** *As required by the Revised Code, a purchaser of fireworks in this state shall legibly complete a firework's purchaser form, as prescribed by the state fire marshal, for each fireworks sales transaction engaged in by the purchaser in this state. The purchaser shall provide the information requested by the state fire marshal on the purchaser form provided by the seller, including, but not limited to, the purchaser's name, address, and drivers license number. The purchaser's copy of the completed purchaser form must accompany the purchased fireworks, must be attached to an invoice itemizing the quantity of fireworks purchased, and the amount of the sales transaction and must be made available upon request by a law enforcement officer or fire authority. The purchaser shall indicate on the purchaser's form whether the purchase is a retail sale or a wholesale sale. The purchaser is responsible for any illegal use of the fireworks purchased, including any damages caused by their improper or illegal use. The purchaser shall be responsible for the transportation of the fireworks so purchased directly out of this state within forty-eight hours after the time of their purchase.*

(3) ***3325.3* Manufacturer or wholesaler responsibilities.** *For each fireworks sales transaction conducted pursuant to section 3743.04* (C) *or 3743.17* (C) *of the Revised Code, the seller shall do the following:*

(a) ***3325.3.1*** *Furnish a copy of the purchaser's form as prescribed by the state fire marshal to each purchaser for each fireworks sales transaction;*

(b) ***3325.3.2*** *Verify that the purchaser fully and legibly completes the purchaser's form;*

(c) ***3325.3.3*** *Attach to the purchaser's copy of the purchaser's form an invoice itemizing the quantity of fireworks purchased and the amount of the sales transaction;*

(d) ***3325.3.4*** *For each transaction that requires the completion of a purchaser's form, the seller shall maintain a readily identifiable record of the invoice itemizing the quantity of fireworks purchased and the amount of the sales transaction;*

(e) ***3325.3.5*** *Maintain the seller's copy of each purchaser's form and invoice for a period of three years after the date of the purchase and open to inspection by the state fire marshal or the state fire marshal's designated authority.*

Supplemental Page

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Ohio Revised Code

(ORC)

3743

Ohio Revised Code
Chapter 3743
Fireworks

3743.01 Definitions
3743.02 Application for license to manufacture fireworks
3743.03 Review of application; issuance; list; change to wholesaler; investigation
3743.04 Renewal; changes in manufacturing or alteration of premises; safety requirements; authorized activities; posting; transfer of license; continuing education; liability insurance
3743.05 Rules governing classification, manufacturing, packaging and storage
3743.06 Additional fireworks plant provisions; safety officer; sale, storage, transportation provisions
3743.07 Records of inventory and sales; purchaser to complete form
3743.08 Inspection of premises and records; actions to remedy noncompliance
3743.15 Application for wholesaler's license
3743.16 Review of application; issuance; list; investigation
3743.17 Renewal; alteration of premises; authorized activities; posting; transfer of license; continuing education; liability insurance
3743.18 Rules governing storage and business operations
3743.19 Additional requirements; safety officer; sale and transportation provisions
3743.20 Records of inventory and sales; purchaser to complete form
3743.21 Inspection of premises and records; actions to remedy noncompliance
3743.25 Safety requirements for show room structures
3743.40 Application for shipping permit by nonresident
3743.44 Sales to nonresidents; purchaser's form
3743.45 Sales of 1.4G fireworks to residents; transportation out of state
3743.50 Application for exhibitor's license
3743.51 Requirements for exhibitor's license; number; list
3743.52 Renewal; authorized activities; revocation; continuing education
3743.53 Rules for qualifying as exhibitor and for exhibitions; persons within discharge perimeter
3743.54 Public fireworks exhibitions
3743.54.1 Fireworks incidents
3743.55 Exhibitor to display license to seller
3743.56 Registration of exhibitor's employees
3743.57 Deposit of fees; interest; creation of fire marshal's fireworks training and education fund
3743.58 Rules for shipping or transporting fireworks
3743.59 Granting of variances
3743.60 Unlicensed manufacturing prohibited; prohibited activities by manufacturer; prohibitions concerning fireworks plant
3743.61 Restrictions on operation as wholesaler
3743.63 Restrictions on purchasers
3743.64 Prohibitions concerning exhibitors and fireworks incident sites
3743.65 Restrictions of possession, sale and use; disabling fire suppression system
3743.66 Limitations on shipping or transporting
3743.68 Arrest of violators; seizure; forfeiture; distribution of fines
3743.70 Felony precludes license or permit
3743.75 Moratorium concerning manufacturer and wholesaler licenses
37.43.80 Exemptions from provisions
3743.99 Penalties 52

3743.01 Fireworks definitions.

As used in this chapter:

(A) “Beer” and “intoxicating liquor” have the same meanings as in section 4301.01 of the Revised Code.

(B) “Booby trap” means a small tube that has a string protruding from both ends, that has a friction-sensitive composition, and that is ignited by pulling the ends of the string.

(C) “Cigarette load” means a small wooden peg that is coated with a small quantity of explosive composition and that is ignited in a cigarette.

(D)(1) “1.3G fireworks” means display fireworks consistent with regulations of the United States department of transportation as expressed using the designation “division 1.3” in Title 49, Code of Federal Regulations.

(2) “1.4G fireworks” means consumer fireworks consistent with regulations of the United States department of transportation as expressed using the designation “division 1.4” in Title 49, Code of Federal Regulations.

(E) “Controlled substance” has the same meaning as in section 3719.01 of the Revised Code.

(F) “Fireworks” means any composition or device prepared for the purpose of producing a visible or an audible effect by combustion, deflagration, or detonation, except ordinary matches and except as provided in section 3743.80 of the Revised Code.

(G) “Fireworks plant” means all buildings and other structures in which the manufacturing of fireworks, or the storage or sale of manufactured fireworks by a manufacturer, takes place.

(H) “Highway” means any public street, road, alley, way, lane, or other public thoroughfare.

(I) “Licensed exhibitor of fireworks” or “licensed exhibitor” means a person licensed pursuant to sections 3743.50 to 3743.55 of the Revised Code.

(J) “Licensed manufacturer of fireworks” or “licensed manufacturer” means a person licensed pursuant to sections 3743.02 to 3743.08 of the Revised Code.

(K) “Licensed wholesaler of fireworks” or “licensed wholesaler” means a person licensed pursuant to sections 3743.15 to 3743.21 of the Revised Code.

(L) “List of licensed exhibitors” means the list required by division (C) of section 3743.51 of the Revised Code.

(M) “List of licensed manufacturers” means the list required by division (C) of section 3743.03 of the Revised Code.

(N) “List of licensed wholesalers” means the list required by division (C) of section 3743.16 of the Revised Code.

(O) “Manufacturing of fireworks” means the making of fireworks from raw materials, none of which in and of themselves constitute a fireworks, or the processing of fireworks.

(P) “Navigable waters” means any body of water susceptible of being used in its ordinary condition as a highway of commerce over which trade and travel is or may be conducted in the customary modes, but does not include a body of water that is not capable of navigation by barges, tugboats, and other large vessels.

(Q) “Novelties and trick noisemakers” include the following items:

(1) Devices that produce a small report intended to surprise the user, including, but not limited to, booby traps, cigarette loads, party poppers, and snappers;

(2) Snakes or glow worms;

(3) Smoke devices;

(4) Trick matches.

(R) “Party popper” means a small plastic or paper item that contains not more than sixteen milligrams of friction-sensitive explosive composition, that is ignited by pulling a string protruding from the item, and from which paper streamers are expelled when the item is ignited.

(S) “Processing of fireworks” means the making of fireworks from materials all or part of which in and of themselves constitute a fireworks, but does not include the mere packaging or repackaging of fireworks.

(T) “Railroad” means any railway or railroad that carries freight or passengers for hire, but does not include auxiliary tracks, spurs, and sidings installed and primarily used in serving a mine, quarry, or plant.

(U) “Retail sale” or “sell at retail” means a sale of fireworks to a purchaser who intends to use the fireworks, and not resell them.

(V) “Smoke device” means a tube or sphere that contains pyrotechnic composition that, upon ignition, produces white or colored smoke as the primary effect.

(W) “Snake or glow worm” means a device that consists of a pressed pellet of pyrotechnic composition that produces a large, snake-like ash upon burning, which ash expands in length as the pellet burns.

(X) “Snapper” means a small, paper-wrapped item that contains a minute quantity of explosive composition coated on small bits of sand, and that, when dropped, implodes.

(Y) “Trick match” means a kitchen or book match that is coated with a small quantity of explosive composition and that, upon ignition, produces a small report or a shower of sparks.

(Z) “Wire sparkler” means a sparkler consisting of a wire or stick coated with a nonexplosive pyrotechnic mixture that produces a shower of sparks upon ignition and that contains no more than one hundred grams of this mixture.

(AA) “Wholesale sale” or “sell at wholesale” means a sale of fireworks to a purchaser who intends to resell the fireworks so purchased.

(BB) “Licensed premises” means the real estate upon which a licensed manufacturer or wholesaler of fireworks conducts business.

(CC) “Licensed building” means a building on the licensed premises of a licensed manufacturer or wholesaler of fireworks that is approved for occupancy by the building official having jurisdiction.

(DD) “Fireworks incident” means any action or omission that occurs at a fireworks exhibition, that results in injury or death, or a substantial risk of injury or death, to any person, and that involves either of the following:

(1) The handling or other use, or the results of the handling or other use, of fireworks or associated equipment or other materials;

(2) The failure of any person to comply with any applicable requirement imposed by this chapter or any applicable rule adopted under this chapter.

(EE) “Discharge site” means an area immediately surrounding the mortars used to fire aerial shells.

(FF) “Fireworks incident site” means a discharge site or other location at a fireworks exhibition where a fireworks incident occurs, a location where an injury or death associated with a fireworks incident occurs, or a location where evidence of a fireworks incident or an injury or death associated with a fireworks incident is found.

(GG) “Storage location” means a single parcel or contiguous parcels of real estate approved by the fire marshal pursuant to division (I) of section 3743.04 of the Revised Code or division (G) of section 3743.17 of the Revised Code that are separate from a licensed premises containing a retail showroom, and which parcel or parcels a licensed manufacturer or wholesaler of fireworks may use only for the distribution, possession, and storage of fireworks in accordance with this chapter.

Effective Date: 06-29-2001; 09-29-2005

3743.02 Application for license to manufacture fireworks.

(A) Any person who wishes to manufacture fireworks in this state shall submit to the fire marshal an application for licensure as a manufacturer of fireworks before the first day of October of each year. The application shall be submitted prior to the operation of a fireworks plant, shall be on a form prescribed by the fire marshal, shall contain all information required by this section or requested by the fire marshal, and shall be accompanied by the license fee, fingerprints, and proof of insurance coverage described in division (B) of this section.

The fire marshal shall prescribe a form for applications for licensure as a manufacturer of fireworks and make a copy of the form available, upon request, to persons who seek that licensure.

(B) An applicant for licensure as a manufacturer of fireworks shall submit with the application all of the following:

(1) A license fee of two thousand seven hundred fifty dollars, which the fire marshal shall use to pay for fireworks safety education, training programs, and inspections. If the

applicant has any storage locations approved in accordance with division (I) of section 3743.04 of the Revised Code, the applicant also shall submit a fee of one hundred dollars per storage location for the inspection of each storage location.

(2) Proof of comprehensive general liability insurance coverage, specifically including fire and smoke casualty on premises and products, in an amount not less than one million dollars for each occurrence for bodily injury liability and wrongful death liability at the fireworks plant. All applicants shall submit evidence of comprehensive general liability insurance coverage verified by the insurer and certified as to its provision of the minimum coverage required under this division.

(3) One complete set of the applicant's fingerprints and a complete set of fingerprints of any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license.

(C) A separate application for licensure as a manufacturer of fireworks shall be submitted for each fireworks plant that a person wishes to operate in this state.

(D) If an applicant intends to include the processing of fireworks as any part of its proposed manufacturing of fireworks, a statement indicating that intent shall be included in its application for licensure.

Effective Date: 06-29-2001; 09-29-2005

3743.03 Reviewing application of manufacturer.

(A) If a person submits an application for licensure as a manufacturer of fireworks, together with the license fee, fingerprints, and proof of the insurance coverage, as required by section 3743.02 of the Revised Code, the fire marshal shall review the application and accompanying matter, request the criminal records check described in division (E) of this section, inspect the premises of the fireworks plant described in the application, and determine whether the applicant will be issued the license. In determining whether to issue the license, the fire marshal shall consider the results of the criminal records check and the inspection, and the information set forth in the application, and shall decide whether the applicant and the fireworks plant described in the application conform to sections 3743.02 to 3743.08 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code, and are in full compliance with Chapters 3781. and 3791. of the Revised Code, and any applicable building or zoning regulations.

(B) Subject to section 3743.70 of the Revised Code, the fire marshal shall issue a license in accordance with Chapter 119. of the Revised Code to an applicant for licensure as a manufacturer of fireworks only if the applicant and the fireworks plant described in the application conform to sections 3743.02 to 3743.08 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code, only if the fireworks plant described in the application complies with the Ohio building code adopted under Chapter 3781. of the Revised Code, if that fireworks plant was constructed after May 30, 1986, and only if the fire marshal is satisfied that the application and accompanying matter are complete and in conformity with section 3743.02 of the Revised Code. The requirements of this chapter and of the rules adopted under this chapter as applicable to the structure of a building do not apply to a building in a fireworks plant if the building was inspected and approved by the department of industrial relations or by any building department certified pursuant to division (E) of section 3781.10 of the Revised Code prior to May 30, 1986.

(C) Each license issued pursuant to this section shall contain a distinct number assigned to the licensed manufacturer and, if the licensed manufacturer will engage in the processing of fireworks as any part of its manufacturing of fireworks at the fireworks plants, a notation indicating that fact. The fire marshal shall maintain a list of all licensed manufacturers of fireworks. In the list next to each manufacturer's name, the fire marshal shall insert the period of licensure, the license number of the manufacturer, and, if applicable, a notation that the manufacturer will engage in the processing of fireworks as part of its manufacturing of fireworks.

(D) The holder of a license issued pursuant to this section may request the fire marshal to cancel that license and issue in its place a license to sell fireworks at wholesale under section 3743.16 of the Revised Code. Upon receipt of such a request, the fire marshal shall cancel the license issued under this section and issue a license under section 3743.16 of the Revised Code if the applicant meets the requirements of that section.

(E) Upon receipt of an application and the required accompanying matter under section 3743.02 of the Revised Code, the fire marshal shall forward to the superintendent of the bureau of criminal identification and investigation a request that the bureau conduct an investigation of the applicant and, if applicable, additional individuals who hold, own, or control a five per cent or greater beneficial or equity interest in the applicant, to determine whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States.

If the applicant for initial licensure has resided in this state for less than five continuous years immediately prior to the date the applicant submits an initial application, the superintendent also shall request that the federal bureau of investigation conduct an investigation of the applicant and, if applicable, additional individuals who hold, own, or control a five per cent or greater beneficial or equity interest in the applicant, to determine whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States.

The superintendent shall forward the results of an investigation conducted pursuant to this division to the fire marshal and may charge a reasonable fee for providing the results. The fire marshal shall assess any fee charged by the superintendent for the results to the applicant.

Effective Date: 06-29-2001

3743.04 License renewal.

(A) The license of a manufacturer of fireworks is effective for one year beginning on the first day of December. The fire marshal shall issue or renew a license only on that date and at no other time. If a manufacturer of fireworks wishes to continue manufacturing fireworks at the designated fireworks plant after its then effective license expires, it shall apply no later than the first day of October for a new license pursuant to section 3743.02 of the Revised Code. The fire marshal shall send a written notice of the expiration of its license to a licensed manufacturer at least three months before the expiration date.

(B) If, during the effective period of its licensure, a licensed manufacturer of fireworks wishes to construct, locate, or relocate any buildings or other structures on the premises of its fireworks plant, to make any structural change or renovation in any building or other structure on the premises of its fireworks plant, or to change the nature of its manufacturing of fireworks so as to include the processing of fireworks, the manufacturer

shall notify the fire marshal in writing. The fire marshal may require a licensed manufacturer also to submit documentation, including, but not limited to, plans covering the proposed construction, location, relocation, structural change or renovation, or change in manufacturing of fireworks, if the fire marshal determines the documentation is necessary for evaluation purposes in light of the proposed construction, location, relocation, structural change or renovation, or change in manufacturing of fireworks.

Upon receipt of the notification and additional documentation required by the fire marshal, the fire marshal shall inspect the premises of the fireworks plant to determine if the proposed construction, location, relocation, structural change or renovation, or change in manufacturing of fireworks conforms to sections 3743.02 to 3743.08 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code. The fire marshal shall issue a written authorization to the manufacturer for the construction, location, relocation, structural change or renovation, or change in manufacturing of fireworks if the fire marshal determines, upon the inspection and a review of submitted documentation, that the construction, location, relocation, structural change or renovation, or change in manufacturing of fireworks conforms to those sections and rules. Upon authorizing a change in manufacturing of fireworks to include the processing of fireworks, the fire marshal shall make notations on the manufacturer's license and in the list of licensed manufacturers in accordance with section 3743.03 of the Revised Code.

On or before June 1, 1998, a licensed manufacturer shall install, in every licensed building in which fireworks are manufactured, stored, or displayed and to which the public has access, interlinked fire detection, smoke exhaust, and smoke evacuation systems that are approved by the superintendent of the division of industrial compliance, and shall comply with floor plans showing occupancy load limits and internal circulation and egress patterns that are approved by the fire marshal and superintendent, and that are submitted under seal as required by section 3791.04 of the Revised Code. Notwithstanding section 3743.59 of the Revised Code, the construction and safety requirements established in this division are not subject to any variance, waiver, or exclusion.

(C) The license of a manufacturer of fireworks authorizes the manufacturer to engage only in the following activities:

(1) The manufacturing of fireworks on the premises of the fireworks plant as described in the application for licensure or in the notification submitted under division (B) of this section, except that a licensed manufacturer shall not engage in the processing of fireworks unless authorized to do so by its license.

(2) To possess for sale at wholesale and sell at wholesale the fireworks manufactured by the manufacturer, to persons who are licensed wholesalers of fireworks, to out-of-state residents in accordance with section 3743.44 of the Revised Code, to residents of this state in accordance with section 3743.45 of the Revised Code, or to persons located in another state provided the fireworks are shipped directly out of this state to them by the manufacturer. A person who is licensed as a manufacturer of fireworks on June 14, 1988, also may possess for sale and sell pursuant to division (C)(2) of this section fireworks other than those the person manufactures. The possession for sale shall be on the premises of the fireworks plant described in the application for licensure or in the notification submitted under division (B) of this section, and the sale shall be from the inside of a licensed building and from no other structure or device outside a licensed building. At no time shall a licensed manufacturer sell any class of fireworks outside a licensed building.

(3) Possess for sale at retail and sell at retail the fireworks manufactured by the manufacturer, other than 1.4G fireworks as designated by the fire marshal in rules adopted pursuant to division (A) of section 3743.05 of the Revised Code, to licensed exhibitors in accordance with sections 3743.50 to 3743.55 of the Revised Code, and possess for sale at retail and sell at retail the fireworks manufactured by the manufacturer, including 1.4G fireworks, to out-of-state residents in accordance with section 3743.44 of the Revised Code, to residents of this state in accordance with section 3743.45 of the Revised Code, or to persons located in another state provided the fireworks are shipped directly out of this state to them by the manufacturer. A person who is licensed as a manufacturer of fireworks on June 14, 1988, may also possess for sale and sell pursuant to division (C)(3) of this section fireworks other than those the person manufactures. The possession for sale shall be on the premises of the fireworks plant described in the application for licensure or in the notification submitted under division (B) of this section, and the sale shall be from the inside of a licensed building and from no other structure or device outside a licensed building. At no time shall a licensed manufacturer sell any class of fireworks outside a licensed building.

A licensed manufacturer of fireworks shall sell under division (C) of this section only fireworks that meet the standards set by the consumer product safety commission or by the American fireworks standard laboratories or that have received an EX number from the United States department of transportation.

(D) The license of a manufacturer of fireworks shall be protected under glass and posted in a conspicuous place on the premises of the fireworks plant. Except as otherwise provided in this division, the license is not transferable or assignable. A license may be transferred to another person for the same fireworks plant for which the license was issued if the assets of the plant are transferred to that person by inheritance or by a sale approved by the fire marshal. The license is subject to revocation in accordance with section 3743.08 of the Revised Code.

(E) The fire marshal shall not place the license of a manufacturer of fireworks in a temporarily inactive status while the holder of the license is attempting to qualify to retain the license.

(F) Each licensed manufacturer of fireworks that possesses fireworks for sale and sells fireworks under division (C) of section 3743.04 of the Revised Code, or a designee of the manufacturer, whose identity is provided to the fire marshal by the manufacturer, annually shall attend a continuing education program consisting of not less than eight hours of instruction. The fire marshal shall develop the program and the fire marshal or a person or public agency approved by the fire marshal shall conduct it. A licensed manufacturer or the manufacturer's designee who attends a program as required under this division, within one year after attending the program, shall conduct in-service training for other employees of the licensed manufacturer regarding the information obtained in the program. A licensed manufacturer shall provide the fire marshal with notice of the date, time, and place of all in-service training not less than thirty days prior to an in-service training event.

(G) A licensed manufacturer shall maintain comprehensive general liability insurance coverage in the amount and type specified under division (B)(2) of section 3743.02 of the Revised Code at all times. Each policy of insurance required under this division shall contain a provision requiring the insurer to give not less than fifteen days' prior written notice to the fire marshal before termination, lapse, or cancellation of the policy, or any change in the policy that reduces the coverage below the minimum required under this division. Prior to canceling or reducing the amount of coverage of any comprehensive general liability insurance coverage required under this division, a licensed manufacturer shall secure supplemental insurance in an amount and type that satisfies the requirements of this

division so that no lapse in coverage occurs at any time. A licensed manufacturer who secures supplemental insurance shall file evidence of the supplemental insurance with the fire marshal prior to canceling or reducing the amount of coverage of any comprehensive general liability insurance coverage required under this division.

(H) The fire marshal shall adopt rules for the expansion or contraction of a licensed premises and for approval of such expansions or contractions. The boundaries of a licensed premises, including any geographic expansion or contraction of those boundaries, shall be approved by the fire marshal in accordance with rules the fire marshal adopts. If the licensed premises consists of more than one parcel of real estate, those parcels shall be contiguous unless an exception is allowed pursuant to division (I) of this section.

(I)(1) A licensed manufacturer may expand its licensed premises within this state to include not more than two storage locations that are located upon one or more real estate parcels that are noncontiguous to the licensed premises as that licensed premises exists on the date a licensee submits an application as described below, if all of the following apply:

(a) The licensee submits an application to the fire marshal and an application fee of one hundred dollars per storage location for which the licensee is requesting approval.

(b) The identity of the holder of the license remains the same at the storage location.

(c) The storage location has received a valid certificate of zoning compliance as applicable and a valid certificate of occupancy for each building or structure at the storage location issued by the authority having jurisdiction to issue the certificate for the storage location, and those certificates permit the distribution and storage of fireworks regulated under this chapter at the storage location and in the buildings or structures. The storage location shall be in compliance with all other applicable federal, state, and local laws and regulations.

(d) Every building or structure located upon the storage location is separated from occupied residential and nonresidential buildings or structures, railroads, highways, or any other buildings or structures on the licensed premises in accordance with the distances specified in the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code.

(e) Neither the licensee nor any person holding, owning, or controlling a five per cent or greater beneficial or equity interest in the licensee has been convicted of or pleaded guilty to a felony under the laws of this state, any other state, or the United States, after the effective date of this amendment.

(f) The fire marshal approves the application for expansion.

(2) The fire marshal shall approve an application for expansion requested under division (I)(1) of this section if the fire marshal receives the application fee and proof that the requirements of divisions (I)(1)(b) to (e) of this section are satisfied. The storage location shall be considered part of the original licensed premises and shall use the same distinct number assigned to the original licensed premises with any additional designations as the fire marshal deems necessary in accordance with section 3743.03 of the Revised Code.

(J)(1) A licensee who obtains approval for the use of a storage location in accordance with division (I) of this section shall use the storage location exclusively for the following activities, in accordance with division (C) of this section:

(a) The packaging, assembling, or storing of fireworks, which shall only occur in buildings, structures, or trailers approved for such hazardous uses by the building code official having jurisdiction for the storage location and shall be in accordance with the rules adopted by the fire marshal under division (G) of section 3743.05 of the Revised Code for the packaging, assembling, and storage of fireworks.

(b) Distributing fireworks to other parcels of real estate located on the manufacturer's licensed premises, to licensed wholesalers or other licensed manufacturers in this state or to similarly licensed persons located in another state or country;

(c) Distributing fireworks to a licensed exhibitor of fireworks pursuant to a properly issued permit in accordance with section 3743.54 of the Revised Code.

(2) A licensed manufacturer shall not engage in any sales activity, including the retail sale of fireworks otherwise permitted under division (C)(2) or (C)(3) of this section, or pursuant to section 3743.44 or 3743.45 of the Revised Code, at the storage location approved under this section.

(K) The licensee shall prohibit public access to the storage location. The fire marshal shall adopt rules to describe the acceptable measures a manufacturer shall use to prohibit access to the storage site.

Effective Date: 06-29-2001; 09-29-2005

3743.05 Rules governing classification, manufacturing, and packaging.

The fire marshal shall adopt rules in accordance with Chapter 119. of the Revised Code governing the classification of fireworks that are consistent with the classification of fireworks by the United States department of transportation as set forth in Title 49, Code of Federal Regulations, and the manufacture of fireworks and the storage of manufactured fireworks by licensed manufacturers of fireworks. The rules shall be designed to promote the safety and security of employees of manufacturers, members of the public, and the fireworks plant.

The rules shall be consistent with sections 3743.02 to 3743.08 of the Revised Code, shall be substantially equivalent to the most recent versions of chapters 1123, 1124, and 1126 of the most recent national fire protection association standards, and shall apply to, but not be limited to, the following subject matters:

(A) A classification of fireworks by number and letter designation, including, specifically, a 1.4G designation of fireworks. The classes of fireworks established by the fire marshal shall be substantially equivalent to those defined by the United States department of transportation by regulation, except that, if the fire marshal determines that a type of fireworks designated as common fireworks by the United States department of transportation meets the criteria of any class of fireworks, other than 1.4G fireworks, as adopted by the fire marshal pursuant to this section, the fire marshal may include the type of fireworks in the other class instead of 1.4G.

(B) Appropriate standards for the manufacturing of types of fireworks that are consistent with standards adopted by the United States department of transportation and the consumer product safety commission, including, but not limited to, the following:

(1) Permissible amounts of pyrotechnic or explosive composition;

(2) Interior and exterior dimensions;

(3) Structural specifications.

(C) Cleanliness and orderliness in, the heating, lighting, and use of stoves and flame-producing items in, smoking in, the prevention of fire and explosion in, the availability of fire extinguishers or other fire-fighting equipment and their use in, and emergency procedures relative to the buildings and other structures located on the premises of a fireworks plant.

(D) Appropriate uniforms to be worn by employees of manufacturers in the course of the manufacturing, handling, and storing of fireworks, and the use of protective clothing and equipment by the employees.

(E) The manner in which fireworks are to be packed, packaged, and stored.

(F) Required distances between buildings or structures used in the manufacturing, storage, or sale of fireworks and occupied residential and nonresidential buildings or structures, railroads, highways, or any additional buildings or structures located on the licensed premises. The rules adopted pursuant to this division do not apply to factory buildings in fireworks plants that were erected on or before May 30, 1986, and that were legally being used for fireworks activities under authority of a valid license issued by the fire marshal as of December 1, 1990, pursuant to sections 3743.03 and 3743.04 of the Revised Code.

(G) Requirements for the operation of storage locations, including packaging, assembling, and storage of fireworks.

Effective Date: 06-29-2001; 09-29-2005

3743.06 Operation of fireworks plants.

In addition to conforming to the rules of the fire marshal adopted pursuant to section 3743.05 of the Revised Code, licensed manufacturers of fireworks shall operate their fireworks plants in accordance with the following:

(A) Signs indicating that smoking is generally forbidden and trespassing is prohibited on the premises of a fireworks plant shall be posted on the premises in a manner determined by the fire marshal.

(B) Reasonable precautions shall be taken to protect the premises of a fireworks plant from trespass, loss, theft, or destruction. Only persons employed by the manufacturer, authorized governmental personnel, and persons who have obtained permission from a member of the manufacturer's office to be on the premises, are to be allowed to enter and remain on the premises.

(C) Smoking or the carrying of pipes, cigarettes, or cigars, matches, lighters, other flame-producing items, or open flame on, or the carrying of a concealed source of ignition into, the premises of a fireworks plant is prohibited, except that a manufacturer may permit smoking in specified lunchrooms or restrooms in buildings or other structures in which no manufacturing, handling, sales, or storage of fireworks takes place. "NO SMOKING" signs shall be posted on the premises as required by the fire marshal.

(D) Fire and explosion prevention and other reasonable safety measures and precautions shall be implemented by a manufacturer.

(E) Persons shall not be permitted to have in their possession or under their control, while they are on the premises of the fireworks plant, any intoxicating liquor, beer, or controlled substance, and they shall not be permitted to enter or remain on the premises if they are found to be under the influence of any intoxicating liquor, beer, or controlled substance.

(F) A manufacturer shall conform to all building, safety, and zoning statutes, ordinances, rules, or other enactments that apply to the premises of its fireworks plant.

(G) Each fireworks plant shall have at least one class 1 magazine that is approved by the bureau of alcohol, tobacco, and firearms of the United States department of the treasury and that is otherwise in conformity with federal law. This division does not apply to fireworks plants existing on or before August 3, 1931.

(H) Awnings, tents, and canopies shall not be used as facilities for the sale or storage of fireworks. This division does not prohibit the use of an awning or canopy attached to a public access showroom for storing nonflammable shopping convenience items such as shopping carts or baskets or providing a shaded area for patrons waiting to enter the public sales area.

(I) Fireworks may be stored in trailers if the trailers are properly enclosed, secured, and grounded and are separated from any structure to which the public is admitted by a distance that will, in the fire marshal's judgment, allow fire-fighting equipment to have full access to the structures on the licensed premises. Such trailers may be moved into closer proximity to any structure only to accept or discharge cargo for a period not to exceed forty-eight hours. Only two such trailers may be placed in such closer proximity at any one time. At no time may trailers be used for conducting sales of any class of fireworks, nor may members of the public have access to the trailers.

Storage areas for fireworks that are in the same building where fireworks are displayed and sold to the public shall be separated from the areas to which the public has access by an appropriately rated fire wall.

(J) A fire suppression system as defined in section 3781.108 of the Revised Code may be turned off only for repair, drainage of the system to prevent damage by freezing during the period of time, approved by the fire marshal, that the facility is closed to all public access during winter months, or maintenance of the system. If any repair or maintenance is necessary during times when the facility is open for public access and business as approved by the fire marshal, the licensed manufacturer shall notify in advance the appropriate insurance company and fire chief or fire prevention officer regarding the nature of the maintenance or repair and the time when it will be performed.

(K) If any fireworks item is removed from its original package or is manufactured with any fuse other than a safety fuse approved by the consumer product safety commission, then the item shall be covered completely by repackaging or bagging or it shall otherwise be covered so as to prevent ignition prior to sale.

(L) A safety officer shall be present during regular business hours at a building open to the public during the period commencing fourteen days before, and ending two days after, each fourth day of July. The officer shall be highly visible, enforce this chapter and any applicable building codes to the extent the officer is authorized by law, and be one of the following:

(1) A deputy sheriff;

(2) A law enforcement officer of a municipal corporation, township, or township or joint township police district;

(3) A private uniformed security guard registered under section 4749.06 of the Revised Code.

(M) All doors of all buildings on the licensed premises shall swing outward.

(N) All wholesale and commercial sales of fireworks shall be packaged, shipped, placarded, and transported in accordance with United States department of transportation regulations applicable to the transportation, and the offering for transportation, of hazardous materials. For purposes of this division, "wholesale and commercial sales" includes all sales for resale and any nonretail sale made in furtherance of a commercial enterprise. For purposes of enforcement of these regulations under section 4905.83 of the Revised Code, any sales transaction exceeding one thousand pounds shall be rebuttably presumed to be a wholesale or commercial sale.

Effective Date: 06-29-2001; 09-29-2005

3743.07 Records.

(A) Licensed manufacturers of fireworks shall keep complete records of all fireworks in their inventory.

(B) Licensed manufacturers of fireworks shall keep the following records with respect to fireworks sold at wholesale or retail for a period of three years after the date of their sale:

(1) In the case of a wholesale sale, the name and address of the purchaser; the destination to which the fireworks will be transported; if applicable, the number of the purchaser's wholesale license; the date of purchase; when the fireworks are to be shipped directly out of this state by a manufacturer to a purchaser, the manner in which the fireworks were shipped to the purchaser; and such other information as the fire marshal may require.

(2) In the case of a retail sale, the name and address of the purchaser; the destination to which the fireworks will be transported; if applicable, the number of the purchaser's exhibitor's license and the number and political subdivision designation of the purchaser's permit for a fireworks exhibition; the date of purchase; when the fireworks are shipped directly out of this state by a manufacturer to a purchaser, the manner in which the fireworks were shipped to the purchaser; and such other information as the fire marshal may require.

(C) The seller shall require each purchaser described in division (B) of this section to complete a purchaser's form, which shall be prescribed by the fire marshal and furnished by the seller. On this form the purchaser shall include the information described in division (B) of this section and the purchaser's signature. Each purchaser's form shall contain a statement printed in bold letters indicating that knowingly making a false statement on the form is falsification under section 2921.13 of the Revised Code and is a misdemeanor of the first degree. Each seller shall keep each purchaser's form for a period of three years after the date of the purchase, and such forms shall be open to inspection by the fire marshal or the fire marshal's designated authority.

(D) A licensed manufacturer of fireworks shall keep its wholesale sale and retail sale records in separate books. These records and the inventory records shall be open to inspection by the fire marshal or the fire marshal's designated authority.

Effective Date: 06-29-2001

3743.08 Inspections.

(A) The fire marshal may inspect the premises of a fireworks plant, and the inventory, wholesale sale, and retail sale records, of a licensed manufacturer of fireworks during the manufacturer's period of licensure to determine whether the manufacturer is in compliance with Chapter 3743. of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code.

(B) If the fire marshal determines during an inspection conducted pursuant to division (A) of this section that a manufacturer is not in compliance with Chapter 3743. of the Revised Code or the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code, the fire marshal may take one or more of the following actions, whichever the fire marshal considers appropriate under the circumstances:

(1) Order, in writing, the manufacturer to eliminate, correct, or otherwise remedy the nonconformities within a specified period of time;

(2) Order, in writing, the manufacturer to immediately cease its operations, if a fire or explosion hazard exists that reasonably can be regarded as posing an imminent danger of death or serious physical harm to persons. The order shall be effective until the nonconformities are eliminated, corrected, or otherwise remedied or for a period of seventy-two hours from the time of issuance, whichever first occurs. During the seventy-two hour period, the fire marshal may obtain from the court of common pleas of Franklin county or of the county in which the fireworks plant is located an injunction restraining the manufacturer from continuing its operations after the seventy-two hour period expires until the nonconformities are eliminated, corrected, or otherwise remedied.

(3) Revoke or deny renewal of the license of the manufacturer in accordance with Chapter 119. of the Revised Code;

(4) Take action as authorized by section 3743.68 of the Revised Code.

(C) This section does not affect the authority conferred by Chapters 3781. and 3791. of the Revised Code to conduct inspections to determine conformity with those chapters or the rules adopted pursuant to them.

(D) If the license of a manufacturer of fireworks is revoked or renewal is denied pursuant to division (B)(3) of this section or section 3743.70 of the Revised Code, the manufacturer shall cease its operations immediately. The manufacturer may not reapply for licensure as a manufacturer of fireworks until two years expire from the date of revocation.

The fire marshal shall remove from the list of licensed manufacturers the name of a manufacturer whose license has been revoked, and shall notify the law enforcement authorities for the political subdivision in which the manufacturer's fireworks plant is located, of the revocation or denial of renewal.

Effective Date: 06-29-2001

3743.09 to 3743.14 Repealed.

Effective Date: 07-01-1979

3743.15 Application for wholesaler's license.

(A) Except as provided in division (C) of this section, any person who wishes to be a wholesaler of fireworks in this state shall submit to the fire marshal an application for licensure as a wholesaler of fireworks before the first day of October of each year. The application shall be submitted prior to commencement of business operations, shall be on a form prescribed by the fire marshal, shall contain all information requested by the fire marshal, and shall be accompanied by the license fee, fingerprints, and proof of insurance coverage described in division (B) of this section.

The fire marshal shall prescribe a form for applications for licensure as a wholesaler of fireworks and make a copy of the form available, upon request, to persons who seek that licensure.

(B) An applicant for licensure as a wholesaler of fireworks shall submit with the application all of the following:

(1) A license fee of two thousand seven hundred fifty dollars, which the fire marshal shall use to pay for fireworks safety education, training programs, and inspections. If the applicant has any storage locations approved in accordance with division (G) of section 3743.17 of the Revised Code, the applicant also shall submit a fee of one hundred dollars per storage location for the inspection of each storage location.

(2) Proof of comprehensive general liability insurance coverage, specifically including fire and smoke casualty on premises, in an amount not less than one million dollars for each occurrence for bodily injury liability and wrongful death liability at its business location. Proof of such insurance coverage shall be submitted together with proof of coverage for products liability on all inventory located at the business location. All applicants shall submit evidence of comprehensive general liability insurance coverage verified by the insurer and certified as to its provision of the minimum coverage required under this division.

(3) One complete set of the applicant’s fingerprints and a complete set of fingerprints of any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license.

(C) A licensed manufacturer of fireworks is not required to apply for and obtain a wholesaler of fireworks license in order to engage in the wholesale sale of fireworks as authorized by division (C)(2) of section 3743.04 of the Revised Code. A business which is not a licensed manufacturer of fireworks may engage in the wholesale and retail sale of fireworks in the same manner as a licensed manufacturer of fireworks is authorized to do under this chapter without the necessity of applying for and obtaining a license pursuant to this section, but only if the business sells the fireworks on the premises of a fireworks plant covered by a license issued under section 3743.03 of the Revised Code and the holder of that license owns at least a majority interest in that business. However, if a licensed manufacturer of fireworks wishes to engage in the wholesale sale of fireworks in this state at a location other than the premises of the fireworks plant described in its application for licensure as a manufacturer or in a notification submitted under division (B) of section 3743.04 of the Revised Code, the manufacturer shall first apply for and obtain a wholesaler of fireworks license before engaging in wholesale sales of fireworks at the other location.

(D) A separate application for licensure as a wholesaler of fireworks shall be submitted for each location at which a person wishes to engage in wholesale sales of fireworks.

Effective Date: 06-29-2001; 09-29-2005

3743.16 Reviewing application of wholesaler.

(A) If a person submits an application for licensure as a wholesaler of fireworks, together with the license fee, fingerprints, and proof of the insurance coverage, as required by section 3743.15 of the Revised Code, the fire marshal shall review the application and accompanying matter, request the criminal records check described in division (D) of this section, inspect the premises on which the fireworks would be sold, and determine whether the applicant will be issued the license. In determining whether to issue the license, the fire marshal shall consider the results of the criminal records check and the inspection, and the information set forth in the application, and shall decide whether the applicant and the premises on which the fireworks will be sold conform to sections 3743.15 to 3743.21 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code, and are in full compliance with Chapters 3781. and 3791. of the Revised Code, and any applicable building or zoning regulations.

(B) Subject to section 3743.70 of the Revised Code, the fire marshal shall issue a license in accordance with Chapter 119. of the Revised Code to the applicant for licensure as a wholesaler of fireworks only if the applicant and the premises on which the fireworks will be sold conform to sections 3743.15 to 3743.21 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code, only if the premises on which the fireworks will be sold complies with the Ohio building code adopted under Chapter 3781. of the Revised Code, if that premises was constructed after May 30, 1986, and only if the fire marshal is satisfied that the application and accompanying matter are complete and in conformity with section 3743.15 of the Revised Code. The requirements of this chapter and of the rules adopted under this chapter as applicable to the structure of a building do not apply to a building used by a wholesaler if the building was inspected and approved by the department of industrial relations or by any building department certified pursuant to division (E) of section 3781.10 of the Revised Code prior to May 30, 1986.

(C) Each license issued pursuant to this section shall contain a distinct number assigned to the particular wholesaler. The fire marshal shall maintain a list of all licensed wholesalers of fireworks. In this list next to each wholesaler's name, the fire marshal shall insert the period of licensure and the license number of the particular wholesaler.

(D) Upon receipt of an application and the required accompanying matter under section 3743.15 of the Revised Code, the fire marshal shall forward to the superintendent of the bureau of criminal identification and investigation a request that the bureau conduct an investigation of the applicant and, if applicable, additional individuals who hold, own, or control a five per cent or greater beneficial or equity interest in the applicant, to determine whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States.

If the applicant for initial licensure has resided in this state for less than five continuous years immediately prior to the date the applicant submits an initial application, the superintendent also shall request that the federal bureau of investigation conduct an investigation of the applicant and, if applicable, additional individuals who hold, own, or control a five per cent or greater beneficial or equity interest in the applicant, to determine

whether the applicant or the additional associated individuals have been convicted of or pled guilty to a felony under the laws of this state, another state, or the United States.

The superintendent shall forward the results of an investigation conducted pursuant to this division to the fire marshal and may charge a reasonable fee for providing the results. The fire marshal shall assess any fee charged by the superintendent for the results to the applicant.

Effective Date: 06-29-2001

3743.17 Wholesaler's license renewal.

(A) The license of a wholesaler of fireworks is effective for one year beginning on the first day of December. The fire marshal shall issue or renew a license only on that date and at no other time. If a wholesaler of fireworks wishes to continue engaging in the wholesale sale of fireworks at the particular location after its then effective license expires, it shall apply not later than the first day of October for a new license pursuant to section 3743.15 of the Revised Code. The fire marshal shall send a written notice of the expiration of its license to a licensed wholesaler at least three months before the expiration date.

(B) If, during the effective period of its licensure, a licensed wholesaler of fireworks wishes to perform any construction, or make any structural change or renovation, on the premises on which the fireworks are sold, the wholesaler shall notify the fire marshal in writing. The fire marshal may require a licensed wholesaler also to submit documentation, including, but not limited to, plans covering the proposed construction or structural change or renovation, if the fire marshal determines the documentation is necessary for evaluation purposes in light of the proposed construction or structural change or renovation.

Upon receipt of the notification and additional documentation required by the fire marshal, the fire marshal shall inspect the premises on which the fireworks are sold to determine if the proposed construction or structural change or renovation conforms to sections 3743.15 to 3743.21 of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code. The fire marshal shall issue a written authorization to the wholesaler for the construction or structural change or renovation if the fire marshal determines, upon the inspection and a review of submitted documentation, that the construction or structural change or renovation conforms to those sections and rules.

(C) The license of a wholesaler of fireworks authorizes the wholesaler to engage only in the following activities:

(1) Possess for sale at wholesale and sell at wholesale fireworks to persons who are licensed wholesalers of fireworks, to out-of-state residents in accordance with section 3743.44 of the Revised Code, to residents of this state in accordance with section 3743.45 of the Revised Code, or to persons located in another state provided the fireworks are shipped directly out of this state to them by the wholesaler. The possession for sale shall be at the location described in the application for licensure or in the notification submitted under division (B) of this section, and the sale shall be from the inside of a licensed building and from no structure or device outside a licensed building. At no time shall a licensed wholesaler sell any class of fireworks outside a licensed building.

(2) Possess for sale at retail and sell at retail fireworks, other than 1.4G fireworks as designated by the fire marshal in rules adopted pursuant to division (A) of section 3743.05 of the Revised Code, to licensed exhibitors in accordance with sections 3743.50 to 3743.55

of the Revised Code, and possess for sale at retail and sell at retail fireworks, including 1.4G fireworks, to out-of-state residents in accordance with section 3743.44 of the Revised Code, to residents of this state in accordance with section 3743.45 of the Revised Code, or to persons located in another state provided the fireworks are shipped directly out of this state to them by the wholesaler. The possession for sale shall be at the location described in the application for licensure or in the notification submitted under division (B) of this section, and the sale shall be from the inside of the licensed building and from no other structure or device outside this licensed building. At no time shall a licensed wholesaler sell any class of fireworks outside a licensed building.

A licensed wholesaler of fireworks shall sell under division (C) of this section only fireworks that meet the standards set by the consumer product safety commission or by the American fireworks standard laboratories or that have received an EX number from the United States department of transportation.

(D) The license of a wholesaler of fireworks shall be protected under glass and posted in a conspicuous place at the location described in the application for licensure or in the notification submitted under division (B) of this section. Except as otherwise provided in this section, the license is not transferable or assignable. A license may be transferred to another person for the same location for which the license was issued if the assets of the wholesaler are transferred to that person by inheritance or by a sale approved by the fire marshal. The license is subject to revocation in accordance with section 3743.21 of the Revised Code.

(E) The fire marshal shall adopt rules for the expansion or contraction of a licensed premises and for the approval of an expansion or contraction. The boundaries of a licensed premises, including any geographic expansion or contraction of those boundaries, shall be approved by the fire marshal in accordance with rules the fire marshal adopts. If the licensed premises of a licensed wholesaler from which the wholesaler operates consists of more than one parcel of real estate, those parcels must be contiguous, unless an exception is allowed pursuant to division (G) of this section.

(F)(1) Upon application by a licensed wholesaler of fireworks, a wholesaler license may be transferred from one geographic location to another within the same municipal corporation or within the unincorporated area of the same township, but only if all of the following apply:

(a) The identity of the holder of the license remains the same in the new location.

(b) The former location is closed prior to the opening of the new location and no fireworks business of any kind is conducted at the former location after the transfer of the license.

(c) The new location has received a local certificate of zoning compliance and a local certificate of occupancy, and otherwise is in compliance with all local building regulations.

(d) The transfer of the license is requested by the licensee because the existing facility poses an immediate hazard to the public.

(e) Every building or structure at the new location is separated from occupied residential and nonresidential buildings or structures, railroads, highways, or any other buildings or structures located on the licensed premises in accordance with the distances specified in the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code. If the

licensee fails to comply with the requirements of division (F)(1)(e) of this section by the licensee's own act, the license at the new location is forfeited.

(f) Neither the licensee nor any person holding, owning, or controlling a five per cent or greater beneficial or equity interest in the licensee has been convicted of or has pleaded guilty to a felony under the laws of this state, any other state, or the United States after June 30, 1997.

(g) The fire marshal approves the request for the transfer.

(2) The new location shall comply with the requirements specified in divisions (A)(1) and (2) of section 3743.25 of the Revised Code whether or not the fireworks showroom at the new location is constructed, expanded, or first begins operating on and after June 30, 1997.

(G)(1) A licensed wholesaler may expand its licensed premises within this state to include not more than two storage locations that are located upon one or more real estate parcels that are noncontiguous to the licensed premises as that licensed premises exists on the date a licensee submits an application as described below, if all of the following apply:

(a) The licensee submits an application to the fire marshal requesting the expansion and an application fee of one hundred dollars per storage location for which the licensee is requesting approval.

(b) The identity of the holder of the license remains the same at the storage location.

(c) The storage location has received a valid certificate of zoning compliance, as applicable, and a valid certificate of occupancy for each building or structure at the storage location issued by the authority having jurisdiction to issue the certificate for the storage location, and those certificates permit the distribution and storage of fireworks regulated under this chapter at the storage location and in the buildings or structures. The storage location shall be in compliance with all other applicable federal, state, and local laws and regulations.

(d) Every building or structure located upon the storage location is separated from occupied residential and nonresidential buildings or structures, railroads, highways, and any other buildings or structures on the licensed premises in accordance with the distances specified in the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code.

(e) Neither the licensee nor any person holding, owning, or controlling a five per cent or greater beneficial or equity interest in the licensee has been convicted of or pleaded guilty to a felony under the laws of this state, any other state, or the United States, after the effective date of this amendment.

(f) The fire marshal approves the application for expansion.

(2) The fire marshal shall approve an application for expansion requested under division (G)(1) of this section if the fire marshal receives the application fee and proof that the requirements of divisions (G)(1)(b) to (e) of this section are satisfied. The storage location shall be considered part of the original licensed premises and shall use the same distinct number assigned to the original licensed premises with any additional designations as the fire marshal deems necessary in accordance with section 3743.16 of the Revised Code.

(H)(1) A licensee who obtains approval for use of a storage location in accordance with division (G) of this section shall use the site exclusively for the following activities, in accordance with division (C)(1) of this section:

(a) Packaging, assembling, or storing fireworks, which shall occur only in buildings approved for such hazardous uses by the building code official having jurisdiction for the storage location and shall be in accordance with the rules adopted by the fire marshal under division (B)(4) of section 3743.18 of the Revised Code for the packaging, assembling, and storage of fireworks.

(b) Distributing fireworks to other parcels of real estate located on the wholesaler's licensed premises, to licensed manufacturers or other licensed wholesalers in this state or to similarly licensed persons located in another state or country;

(c) Distributing fireworks to a licensed exhibitor of fireworks pursuant to a properly issued permit in accordance with section 3743.54 of the Revised Code.

(2) A licensed wholesaler shall not engage in any sales activity, including the retail sale of fireworks otherwise permitted under division (C)(2) of this section or pursuant to section 3743.44 or 3743.45 of the Revised Code, at a storage location approved under this section.

(I) A licensee shall prohibit public access to all storage locations it uses. The fire marshal shall adopt rules establishing acceptable measures a wholesaler shall use to prohibit access to storage sites.

(J) The fire marshal shall not place the license of a wholesaler of fireworks in temporarily inactive status while the holder of the license is attempting to qualify to retain the license.

(K) Each licensed wholesaler of fireworks or a designee of the wholesaler, whose identity is provided to the fire marshal by the wholesaler, annually shall attend a continuing education program consisting of not less than eight hours of instruction. The fire marshal shall develop the program and the fire marshal or a person or public agency approved by the fire marshal shall conduct it. A licensed wholesaler or the wholesaler's designee who attends a program as required under this division, within one year after attending the program, shall conduct in-service training for other employees of the licensed wholesaler regarding the information obtained in the program. A licensed wholesaler shall provide the fire marshal with notice of the date, time, and place of all in-service training not less than thirty days prior to an in-service training event.

(L) A licensed wholesaler shall maintain comprehensive general liability insurance coverage in the amount and type specified under division (B)(2) of section 3743.15 of the Revised Code at all times. Each policy of insurance required under this division shall contain a provision requiring the insurer to give not less than fifteen days' prior written notice to the fire marshal before termination, lapse, or cancellation of the policy, or any change in the policy that reduces the coverage below the minimum required under this division. Prior to canceling or reducing the amount of coverage of any comprehensive general liability insurance coverage required under this division, a licensed wholesaler shall secure supplemental insurance in an amount and type that satisfies the requirements of this division so that no lapse in coverage occurs at any time. A licensed wholesaler who secures supplemental insurance shall file evidence of the supplemental insurance with the fire marshal prior to canceling or reducing the amount of coverage of any comprehensive general liability insurance coverage required under this division.

Effective Date: 06-29-2001; 09-29-2005

3743.18 Storage and business operations.

(A) The fire marshal shall adopt rules pursuant to Chapter 119. of the Revised Code governing the storage of fireworks by and the business operations of licensed wholesalers of fireworks. These rules shall be designed to promote the safety and security of employees of wholesalers, members of the public, and the premises upon which fireworks are sold.

(B) The rules shall be consistent with sections 3743.15 to 3743.21 of the Revised Code, shall be substantially equivalent to the most recent versions of chapters 1123, 1124, and 1126 of the most recent national fire protection association standards, and shall apply to, but not be limited to, the following subject matters:

(1) Cleanliness and orderliness in, the heating, lighting, and use of stoves and flame-producing items in, smoking in, the prevention of fire and explosion in, the availability of fire extinguishers or other fire-fighting equipment and their use in, and emergency procedures relative to the buildings and other structures on a wholesaler's premises;

(2) Appropriate uniforms to be worn by employees of wholesalers in the course of handling and storing of fireworks, and the use of protective clothing and equipment by the employees;

(3) The manner in which fireworks are to be stored;

(4) Required distances between buildings or structures used in the manufacturing, storage, or sale of fireworks and occupied residential and nonresidential buildings or structures, railroads, highways, or any additional buildings or structures on a licensed premises.

(5) Requirements for the operation of storage locations, including packaging, assembling, and storage of fireworks.

(C) Rules adopted pursuant to division (B)(4) of this section do not apply to buildings that were erected on or before May 30, 1986, and that were legally being used for fireworks activities under authority of a valid license issued by the fire marshal as of December 1, 1990, pursuant to sections 3743.16 and 3743.17 of the Revised Code.

Effective Date: 06-29-2001; 09-29-2005

3743.19 Additional requirements for wholesalers.

In addition to conforming to the rules of the fire marshal adopted pursuant to section 3743.18 of the Revised Code, licensed wholesalers of fireworks shall conduct their business operations in accordance with the following:

(A) A wholesaler shall conduct its business operations from the location described in its application for licensure or in a notification submitted under division (B) of section 3743.17 of the Revised Code.

(B) Signs indicating that smoking is generally forbidden and trespassing is prohibited on the premises of a wholesaler shall be posted on the premises as determined by the fire marshal.

(C) Reasonable precautions shall be taken to protect the premises of a wholesaler from trespass, loss, theft, or destruction.

(D) Smoking or the carrying of pipes, cigarettes, or cigars, matches, lighters, other flame-producing items, or open flame on, or the carrying of a concealed source of ignition into, the premises of a wholesaler is prohibited, except that a wholesaler may permit smoking in specified lunchrooms or restrooms in buildings or other structures in which no sales, handling, or storage of fireworks takes place. “NO SMOKING” signs shall be posted on the premises as required by the fire marshal.

(E) Fire and explosion prevention and other reasonable safety measures and precautions shall be implemented by a wholesaler.

(F) Persons shall not be permitted to have in their possession or under their control, while they are on the premises of a wholesaler, any intoxicating liquor, beer, or controlled substance, and they shall not be permitted to enter or remain on the premises if they are found to be under the influence of any intoxicating liquor, beer, or controlled substance.

(G) A wholesaler shall conform to all building, safety, and zoning statutes, ordinances, rules, or other enactments that apply to its premises.

(H) Each building used in the sale of fireworks shall be kept open to the public for at least four hours each day between the hours of eight a.m. and five p.m., five days of each week, every week of the year. Upon application from a licensed wholesaler, the fire marshal may waive any of the requirements of this division.

(I) Awnings, tents, or canopies shall not be used as facilities for the storage or sale of fireworks. This division does not prohibit the use of an awning or canopy attached to a public access showroom for storing nonflammable shopping convenience items such as shopping carts or baskets or providing a shaded area for patrons waiting to enter the public sales area.

(J) Fireworks may be stored in trailers if the trailers are properly enclosed, secured, and grounded and are separated from any structure to which the public is admitted by a distance that will, in the fire marshal’s judgment, allow fire-fighting equipment to have full access to the structures on the licensed premises. Such trailers may be moved into closer proximity to any structure only to accept or discharge cargo for a period not to exceed forty-eight hours. Only two such trailers may be placed in such closer proximity at any one time. At no time may trailers be used for conducting sales of any class of fireworks nor may members of the public have access to the trailers.

Storage areas for fireworks that are in the same building where fireworks are displayed and sold to the public shall be separated from the areas to which the public has access by an appropriately rated fire wall.

(K) A fire suppression system as defined in section 3781.108 of the Revised Code may be turned off only for repair, drainage of the system to prevent damage by freezing during the period of time, approved by the fire marshal under division (I) of this section, that the facility is closed to public access during winter months, or maintenance of the system. If any repair or maintenance is necessary during times when the facility is open for public access and business, the licensed wholesaler shall notify in advance the appropriate insurance company and fire chief or fire prevention officer regarding the nature of the maintenance or repair and the time when it will be performed.

(L) If any fireworks item is removed from its original package or is manufactured with any fuse other than a fuse approved by the consumer product safety commission, then the item shall be covered completely by repackaging or bagging or it shall otherwise be covered so as to prevent ignition prior to sale.

(M) A safety officer shall be present during regular business hours at a building open to the public during the period commencing fourteen days before, and ending two days after, each fourth day of July. The officer shall be highly visible, enforce this chapter and any applicable building codes to the extent the officer is authorized by law, and be one of the following:

(1) A deputy sheriff;

(2) A law enforcement officer of a municipal corporation, township, or township or joint township police district;

(3) A private uniformed security guard registered under section 4749.06 of the Revised Code.

(N) All doors of all buildings on the licensed premises shall swing outward.

(O) All wholesale and commercial sales of fireworks shall be packaged, shipped, placarded, and transported in accordance with United States department of transportation regulations applicable to the transportation, and the offering for transportation, of hazardous materials. For purposes of this division, “wholesale and commercial sales” includes all sales for resale and any nonretail sale made in furtherance of a commercial enterprise. For purposes of enforcement of these regulations under section 4905.83 of the Revised Code, any sales transaction exceeding one thousand pounds shall be rebuttably presumed to be a wholesale or commercial sale.

Effective Date: 06-29-2001; 09-29-2005

3743.20 Records.

(A) Licensed wholesalers of fireworks shall keep complete records of all fireworks in their inventory.

(B) Licensed wholesalers of fireworks shall keep the following records with respect to fireworks sold at wholesale or retail for a period of three years after the date of their sale:

(1) In the case of a wholesale sale, the name and address of the purchaser; the destination to which the fireworks will be transported; if applicable, the number of the purchaser’s wholesale license; the date of the purchase; when the fireworks are to be shipped directly out of this state by a wholesaler to a purchaser, the manner in which the fireworks were shipped to the purchaser; and such other information as the fire marshal may require;

(2) In the case of a retail sale, the name and address of the purchaser; the destination to which the fireworks will be transported; if applicable, the number of the purchaser’s exhibitor’s license and the number and political subdivision designation of the purchaser’s permit for a fireworks exhibition; the date of purchase; when the fireworks are shipped directly out of this state by a wholesaler to a purchaser, the manner in which the fireworks were shipped to the purchaser; and such other information as the fire marshal may require.

(C) The seller shall require each purchaser described in division (B) of this section to complete a purchaser's form, which shall be prescribed by the fire marshal and furnished by the seller. On this form the purchaser shall include the information described in division (B) of this section and the purchaser's signature. Each purchaser's form shall contain a statement printed in bold letters indicating that knowingly making a false statement on the form is falsification under section 2921.13 of the Revised Code and is a misdemeanor of the first degree. Each seller shall keep each purchaser's form for a period of three years after the date of the purchase, and such forms shall be open to inspection by the fire marshal or the fire marshal's designated authority.

(D) A licensed wholesaler of fireworks shall keep its wholesale sale and retail sale records in separate books. These records and the inventory records shall be open to inspection by the fire marshal or the fire marshal's designated authority.

Effective Date: 06-29-2001

3743.21 Inspections.

(A) The fire marshal may inspect the premises, and the inventory, wholesale sale, and retail sale records, of a licensed wholesaler of fireworks during the wholesaler's period of licensure to determine whether the wholesaler is in compliance with Chapter 3743. of the Revised Code and the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code.

(B) If the fire marshal determines during an inspection conducted pursuant to division (A) of this section that a wholesaler is not in compliance with Chapter 3743. of the Revised Code or the rules adopted by the fire marshal pursuant to section 3743.18 of the Revised Code, the fire marshal may take one or more of the following actions, whichever the fire marshal considers appropriate under the circumstances:

(1) Order, in writing, the wholesaler to eliminate, correct, or otherwise remedy the nonconformities within a specified period of time;

(2) Order, in writing, the wholesaler to immediately cease its operations, if a fire or explosion hazard exists that reasonably can be regarded as posing an imminent danger of death or serious physical harm to persons. The order shall be effective until the nonconformities are eliminated, corrected, or otherwise remedied or for a period of seventy-two hours from the time of issuance, whichever first occurs. During the seventy-two hour period, the fire marshal may obtain from the court of common pleas of Franklin county or of the county in which the premises of the wholesaler are located an injunction restraining the wholesaler from continuing its operations after the seventy-two hour period expires until the nonconformities are eliminated, corrected, or otherwise remedied.

(3) Revoke, or deny renewal of, the license of the wholesaler in accordance with Chapter 119. of the Revised Code;

(4) Take action as authorized by section 3743.68 of the Revised Code.

(C) This section does not affect the authority conferred by Chapters 3781. and 3791. of the Revised Code to conduct inspections to determine conformity with those chapters or the rules adopted pursuant to them.

(D) If the license of a wholesaler of fireworks is revoked or renewal is denied pursuant to division (B)(3) of this section or section 3743.70 of the Revised Code, the wholesaler shall cease its operations immediately. The wholesaler may not reapply for licensure as a wholesaler of fireworks until two years expire from the date of revocation.

The fire marshal shall remove from the list of licensed wholesalers the name of a wholesaler whose license has been revoked, and shall notify the law enforcement authorities for the political subdivision in which the wholesaler's premises are located, of the revocation or denial of renewal.

Effective Date: 06-29-2001

3743.22 to 3743.24 Repealed.

Effective Date: 07-01-1979

3743.25 Safety requirements for fireworks showroom structures.

(A) A licensed manufacturer, wholesaler, or exhibitor shall bring fireworks showroom structures, to which the public may have any access and in which employees are required to work, on all licensed premises, into compliance with the following safety requirements:

(1) A fireworks showroom that is constructed or upon which expansion is undertaken on and after the effective date of this section, shall be equipped with interlinked fire detection, fire suppression, smoke exhaust, and smoke evacuation systems that are approved by the superintendent of the division of industrial compliance in the department of commerce.

(2) A fireworks showroom that first begins to operate on or after the effective date of this section and to which the public has access for retail purposes shall not exceed five thousand square feet in floor area.

(3) A fireworks showroom structure that exists on the effective date of this section but that, on or after the effective date of this section, is altered or added to in a manner requiring the submission of plans, drawings, specifications, or data pursuant to section 3791.04 of the Revised Code, shall comply with a graphic floor plan layout that is approved by the fire marshal and superintendent of the division of industrial compliance showing width of aisles, parallel arrangement of aisles to exits, number of exits per wall, maximum occupancy load, evacuation plan for occupants, height of storage or display of merchandise, and other information as may be required by the fire marshal and superintendent.

(4)(a) Except as provided in division (A)(4)(b) of this section, a fireworks showroom structure that exists on the effective date of this section shall be retrofitted on or before June 1, 1998, with interlinked fire detection, smoke exhaust, and smoke evacuation systems that are approved by the superintendent of the division of industrial compliance.

(b) If meeting the retrofitting requirements set forth in division (A)(4)(a) of this section would constitute an extreme financial hardship that would force a licensee to terminate business operations, the licensee shall conduct sales only on the basis of defused representative samples in closed and covered displays within the fireworks showroom.

(5) A fireworks showroom structure that exists on the effective date of this section shall be in compliance on or before June 1, 1998, with floor plans showing occupancy load limits and internal circulation and egress patterns that are approved by the fire marshal and

superintendent of industrial compliance, and that are submitted under seal as required by section 3791.04 of the Revised Code.

(B) The safety requirements established in division (A) of this section are not subject to any variance, waiver, or exclusion pursuant to this chapter or any applicable building code.

Effective Date: 06-29-2001; 2007 HB119 09-29-2007

3743.26 Repealed.

Effective Date: 07-01-1979

3743.27 to 3743.35 Repealed.

Effective Date: 05-30-1986

3743.36, 3743.37 Repealed.

Effective Date: 10-01-1953

3743.38, 3743.39 Repealed.

Effective Date: 05-30-1986

3743.40 Applying for shipping permit by nonresident.

(A) Any person who resides in another state and who intends to ship fireworks into this state shall submit to the fire marshal an application for a shipping permit. As used in this section, “fireworks” includes only 1.3G and 1.4G fireworks. The application shall be submitted prior to shipping fireworks into this state, shall be on a form prescribed by the fire marshal, shall contain the information required by division (B) of this section and all information requested by the fire marshal, and shall be accompanied by the fee and the documentation described in division (C) of this section.

The fire marshal shall prescribe a form for applications for shipping permits and make a copy of the form available, upon request, to persons who seek such a permit.

(B) In an application for a shipping permit, the applicant shall specify the types of fireworks to be shipped into this state.

(C) An application for a shipping permit shall be accompanied by a fee of two thousand seven hundred fifty dollars.

An application for a shipping permit shall be accompanied by a certified copy of the applicant’s license or permit issued in the applicant’s state of residence and authorizing the applicant to engage in the manufacture, wholesale sale, or transportation of fireworks in that state, if that state issues such a license or permit, and by a statement by the applicant that the applicant understands and will abide by rules adopted by the fire marshal pursuant to section 3743.58 of the Revised Code for transporting fireworks.

(D) Except as otherwise provided in this division, and subject to section 3743.70 of the Revised Code, the fire marshal shall issue a shipping permit to an applicant only if the fire marshal determines that the applicant is a resident of another state and is the holder of a

license or permit issued by that state authorizing it to engage in the manufacture, wholesale sale, or transportation of fireworks in that state, and the fire marshal is satisfied that the application and documentation are complete and in conformity with this section and that the applicant will transport fireworks into this state in accordance with rules adopted by the fire marshal pursuant to section 3743.58 of the Revised Code. The fire marshal shall issue a shipping permit to an applicant if the applicant meets all of the requirements of this section for the issuance of a shipping permit except that the applicant does not hold a license or permit issued by the state of residence authorizing the applicant to engage in the manufacture, wholesale sale, or transportation of fireworks in that state because that state does not issue such a license or permit.

(E) Each permit issued pursuant to this section shall contain a distinct number assigned to the particular permit holder, and contain the information described in division (B) of this section.

The fire marshal shall maintain a list of all persons issued shipping permits. In this list next to each person's name, the fire marshal shall insert the date upon which the permit was issued and the information described in division (B) of this section.

(F) A shipping permit is valid for one year from the date of issuance by the fire marshal and only if the permit holder ships the fireworks directly into this state to the holder of a license issued under section 3743.03 or 3743.16 of the Revised Code. The permit authorizes the permit holder to ship fireworks directly to the holder of a license issued under section 3743.03 or 3743.16 of the Revised Code, and to possess the fireworks in this state while the permit holder is in the course of shipping them directly into this state.

The holder of a shipping permit shall have the permit in the holder's possession in this state at all times while in the course of shipping the fireworks directly into this state. A shipping permit is not transferable or assignable.

Effective Date: 06-29-2001

3743.41 Repealed.

Effective Date: 05-30-1986

3743.42 Repealed.

Effective Date: 07-01-1979

3743.43 Repealed.

Effective Date: 05-30-1986

3743.44 Selling to nonresidents.

(A) Any person who resides in another state and who intends to obtain possession in this state of fireworks purchased in this state shall obtain possession of the fireworks only from a licensed manufacturer or licensed wholesaler and only possess the fireworks in this state while in the course of directly transporting them out of this state. No licensed manufacturer or licensed wholesaler shall sell 1.3G fireworks to a person who resides in another state unless that person has been issued a license or permit in the state of the person's residence that authorizes the person to engage in the manufacture, wholesale sale, or retail sale of

1.3G fireworks or that authorizes the person to conduct 1.3G fireworks exhibitions in that state and that person presents a certified copy of the license. No licensed manufacturer or licensed wholesaler shall sell fireworks to a person who resides in another state unless that person has been issued a license or permit in the state of the person's residence that authorizes the person to engage in the manufacture, wholesale sale, or retail sale of fireworks in that state or that authorizes the person to conduct fireworks exhibitions in that state and that person presents a certified copy of the license, or, if that person does not possess a license or permit of that nature, only if the person presents a current valid motor vehicle operator's license issued to the person in the person's state of residence, or, if that person does not possess a motor vehicle operator's license issued in that state, an identification card issued to the person by a governmental agency in the person's state of residence indicating that the person is a resident of that state. If a person who is required to present a motor vehicle operator's license or other identification card intends to transport the fireworks purchased directly out of this state by a motor vehicle and the person will not also be the operator of that motor vehicle while so transporting the fireworks, the operator of the motor vehicle also shall present the operator's motor vehicle operator's license.

(B) A licensed manufacturer or licensed wholesaler selling fireworks under this section shall require the purchaser to complete a purchaser's form. The fire marshal shall prescribe the form, and the licensed manufacturer or licensed wholesaler shall furnish the form. On this form the purchaser shall include the purchaser's name and address; the date of the purchase; the destination to which the fireworks will be transported; the number of the purchaser's license or permit authorizing the purchaser to manufacture, sell at wholesale, or sell at retail fireworks or to conduct fireworks exhibitions, or the number of the purchaser's motor vehicle operator's license or other identification card, as applicable; such other information as the fire marshal may require; and the purchaser's signature. Each purchaser's form shall contain a statement printed in bold letters indicating that knowingly making a false statement on the form is falsification under section 2921.13 of the Revised Code and is a misdemeanor of the first degree.

Each licensed manufacturer and licensed wholesaler shall keep each purchaser's form for a period of three years after the date of the purchase, and such forms shall be open to inspection by the fire marshal or the fire marshal's designated authority.

(C) Each purchaser of fireworks under this section shall transport the fireworks so purchased directly out of this state within seventy-two hours after the time of their purchase.

This section regulates wholesale sales and retail sales of fireworks in this state only insofar as purchasers of fireworks are residents of other states and will be obtaining possession in this state of purchased fireworks. This section does not prohibit licensed manufacturers or wholesalers from selling fireworks, in accordance with section 3743.04 or 3743.17 of the Revised Code, to a resident of another state and from shipping the purchased fireworks directly out of this state to the purchaser.

Effective Date: 06-29-2001

3743.45 Purchase of 1.4G fireworks from licensed manufacturer or wholesaler.

(A) Any person who resides in this state and who intends to obtain possession in this state of 1.4G fireworks purchased in this state shall obtain possession of the 1.4G fireworks only from a licensed manufacturer or licensed wholesaler.

A licensed manufacturer or licensed wholesaler selling 1.4G fireworks under this division shall require the purchaser to complete a purchaser's form, which shall be prescribed by the state fire marshal and furnished by the licensed manufacturer or licensed wholesaler. On this form the purchaser shall include the purchaser's name and address, the date of the purchase, the destination to which the fireworks will be transported, such other information as the fire marshal may require, and the purchaser's signature. Each purchaser's form shall contain a statement printed in bold letters indicating that knowingly making a false statement on the form is falsification under section 2921.13 of the Revised Code and is a misdemeanor of the first degree.

Each licensed manufacturer and licensed wholesaler shall keep each purchaser's form for a period of three years after the date of the purchase, and such forms shall be open to inspection by the fire marshal or the fire marshal's designated authority.

Each purchaser of 1.4G fireworks under this division shall transport the fireworks so purchased directly out of this state within forty-eight hours after the time of their purchase.

This division does not apply to a person who resides in this state and who is also a licensed manufacturer, licensed wholesaler, or licensed exhibitor of fireworks in this state.

(B) No licensed manufacturer or licensed wholesaler shall sell 1.3G fireworks to a person who resides in this state unless that person is a licensed manufacturer, licensed wholesaler, or licensed exhibitor of fireworks in this state.

Effective Date: 06-29-2001

3743.46 to 3743.49 Repealed.

Effective Date: 07-01-1979

3743.50 Applying for exhibitor's license.

Any person who wishes to be an exhibitor of fireworks in this state shall submit to the fire marshal an application for licensure as an exhibitor of fireworks. The application shall be on a form prescribed by the fire marshal, contain all information requested by the fire marshal, and be accompanied by a fee of fifty dollars. The fire marshal shall prescribe a form for applications for licensure as an exhibitor of fireworks and make a copy of the form available, upon request, to persons who seek that licensure. An applicant for licensure as an exhibitor of fireworks shall be at least twenty-one years of age and be in compliance with Chapter 4123. of the Revised Code.

Effective Date: 06-29-2001

3743.51 Requirements.

(A) If a person submits an application for licensure as an exhibitor of fireworks, together with the fee, as required by section 3743.50 of the Revised Code, the fire marshal shall review the application and determine whether the applicant satisfies sections 3743.50 to 3743.55 of the Revised Code and the rules adopted by the fire marshal pursuant to division (A) of section 3743.53 of the Revised Code.

(B) Subject to section 3743.70 of the Revised Code, the fire marshal shall issue a license in accordance with Chapter 119. of the Revised Code to the applicant for licensure as an

exhibitor of fireworks only if the applicant satisfies sections 3743.50 to 3743.55 of the Revised Code and the rules adopted by the fire marshal pursuant to division (A) of section 3743.53 of the Revised Code, and only if the fire marshal is satisfied that the application is complete and in conformity with section 3743.50 of the Revised Code.

(C) Each license issued pursuant to this section shall contain a distinct number assigned to the particular exhibitor. The fire marshal shall maintain a list of all licensed exhibitors of fireworks. In this list next to each exhibitor's name, the fire marshal shall insert the period of licensure and the license number of the particular exhibitor.

Effective Date: 06-29-2001

3743.52 Renewal.

(A) The license of an exhibitor of fireworks is effective for one year from the date of its issuance by the fire marshal. If an exhibitor of fireworks wishes to continue as an exhibitor after its then effective license expires, it shall apply for a new license pursuant to section 3743.50 of the Revised Code. The fire marshal shall send a written notice of the expiration of its license to a licensed exhibitor at least two months before the expiration date.

(B) The license of an exhibitor of fireworks authorizes the exhibitor to conduct public fireworks exhibitions in this state if it complies with sections 3743.50 to 3743.55 of the Revised Code and with the rules adopted by the fire marshal pursuant to section 3743.53 of the Revised Code.

The license is not transferable or assignable, and is subject to revocation as provided in section 3743.70 or division (D) of section 3743.99 of the Revised Code or pursuant to Chapter 119. of the Revised Code if the exhibitor fails to comply with sections 3743.50 to 3743.55 of the Revised Code or the rules adopted by the fire marshal pursuant to section 3743.53 of the Revised Code.

If the license of an exhibitor is revoked, the exhibitor shall cease conducting public fireworks exhibitions immediately. Subject to division (D) of section 3743.99 of the Revised Code, the exhibitor may not reapply for licensure as an exhibitor of fireworks until two years expire from the date of revocation. The fire marshal shall remove from the list of licensed exhibitors the exhibitor's name, and shall notify fire chiefs, fire prevention officers, and police chiefs or other similar chief law enforcement officers of municipal corporations, townships, or township police districts in this state of the revocation.

(C) Each licensed exhibitor of fireworks or a designee of the exhibitor, whose identity is provided to the fire marshal by the exhibitor, shall attend a continuing education program consisting of not less than six hours of instruction once every three years. The fire marshal shall develop the program, and the fire marshal or a person or public agency approved by the fire marshal shall conduct it. A licensed exhibitor or the exhibitor's designee who attends a program as required under this division, within one year after attending the program, and on an annual basis during the following two years, shall conduct in-service training for other employees of the licensee regarding the information obtained in the program. A licensed exhibitor shall provide the fire marshal with certified proof of full compliance with all applicable annual training requirements of the United States department of transportation and of the occupational safety and health administration. A licensed exhibitor shall provide the fire marshal with notice of the date, time, and place of all in-service training not less than thirty days prior to an in-service training event. An individual

exhibitor who has no employees shall not fulfill continuing education requirements through a designee.

Effective Date: 06-29-2001

3743.53 Qualifying as exhibitor and for exhibitions.

(A) The fire marshal shall adopt rules in accordance with Chapter 119. of the Revised Code that establish qualifications that all applicants for licensure as an exhibitor of fireworks shall satisfy. These rules shall be designed to provide a reasonable degree of assurance that individuals conducting public fireworks exhibitions in this state are proficient in handling and discharging fireworks, are capable of handling the responsibilities associated with exhibitions as prescribed by rule of the fire marshal pursuant to divisions (B) and (E) of this section or as prescribed by sections 3743.50 to 3743.55 of the Revised Code, and will conduct fireworks exhibitions in a manner that emphasizes the safety and security of the public. The rules shall be consistent with sections 3743.50 to 3743.55 of the Revised Code and may include, in addition to other requirements prescribed by the fire marshal, a requirement that the applicant for licensure successfully complete a written examination or otherwise successfully demonstrate its proficiency in the handling and discharging of fireworks in a safe manner and its ability to handle the responsibilities associated with exhibitions.

(B) The fire marshal shall adopt rules in accordance with Chapter 119. of the Revised Code that govern the nature and conduct of public fireworks exhibitions by licensed exhibitors of fireworks. These rules shall be designed to promote the safety and security of persons viewing a fireworks exhibition, to promote the safety of persons who, although not viewing an exhibition, could be affected by fireworks used at it, and to promote the safety and security of exhibitors and their assistants.

The rules shall be consistent with sections 3743.50 to 3743.55 of the Revised Code; except as otherwise provided in this section, shall be substantially equivalent to the most recent versions of chapters 1123, 1124, and 1126 of the most recent national fire protection association standards; and shall apply to, but not be limited to, the following subject matters:

(1) The construction of shells used in a fireworks exhibition;

(2) Except as the storage and securing of fireworks is addressed by the rules adopted under division (E) of this section, the storage, securing, and supervision of fireworks pending their use in, and during the course of, a fireworks exhibition, and inspections by exhibitors of fireworks to be used in an exhibition prior to their use. These rules shall regulate, among other relevant matters, the storage of fireworks in manners that will effectively eliminate or reduce the likelihood of the fireworks becoming wet or being exposed to flame, and appropriate distances between storage sites and the sites at which fireworks will be discharged.

(3) The installation and nature of mortars used in a fireworks exhibition, and inspections by exhibitors of mortars prior to their use;

(4) Minimum distances between storage sites, discharge sites, spectator viewing sites, parking areas, and potential landing areas of fireworks, and minimum distances between discharge sites, potential landing areas, and residential or other types of buildings or structures;

(5) The nature of discharge sites and potential landing sites;

(6) Fire protection, the use and location of monitors for crowd control, the use of fences and rope barriers for crowd control, illumination, smoking and the use of open flame, and posting of warning signs concerning smoking or the use of open flame in connection with fireworks exhibitions. These rules may provide some authority to local officials in determining adequate fire protection, and numbers and locations of monitors.

(7) Procedures to be followed in the discharging of fireworks;

(8) Weather and crowd-related conditions under which fireworks may and may not be discharged, including circumstances under which exhibitions should be postponed;

(9) Inspections of premises following a fireworks exhibition for purposes of locating and disposing of defective or unexploded fireworks. Inspections shall be required immediately following an exhibition, and, if an exhibition is conducted at night, also at sunrise the following morning.

(C) All mortars used in a fireworks exhibition that are greater than or equal to eight inches in diameter shall be equipped with electronic ignition equipment in accordance with chapter 1123 of the most recent edition of the national fire protection association standards.

(D) Only persons who are employees of licensed exhibitors of fireworks and who are registered with the fire marshal under section 3743.56 of the Revised Code shall be permitted within the discharge perimeter of an exhibition.

(E)(1) The fire marshal shall adopt rules in accordance with Chapter 119. of the Revised Code and consistent with division (E)(3) of this section that establish both of the following:

(a) Uniform standards for the stability and securing of fireworks storage racks used at a fireworks exhibition;

(b) A detailed checklist that a fire chief or fire prevention officer, in consultation with a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district or with a designee of such a police chief or other similar chief law enforcement officer, shall complete, while conducting the inspection required under division (C) of section 3743.54 of the Revised Code at the premises at which a fireworks exhibition will take place, to ensure that the exhibition will comply with all applicable requirements of this chapter, and all applicable rules adopted under this chapter, that regulate the conduct of a fireworks exhibition.

(2) Each licensed exhibitor of fireworks shall comply with the rules that the fire marshal adopts under division (E)(1)(a) of this section.

(3) Prior to the fire marshal's adoption of the rules referred to in divisions (E)(1)(a) and (b) of this section, the director of commerce shall appoint a committee consisting of the fire marshal, three representatives of the fireworks industry, and three representatives of the fire service industry to assist the fire marshal in adopting those rules. The fire marshal shall adopt initial rules under those divisions by not later than May 1, 2001.

(F) A fire chief or fire prevention officer, in consultation with a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district or with a designee of such a police chief or other similar chief law enforcement

officer, shall conduct the inspection referred to in division (E)(1)(b) of this section, complete the checklist referred to in division (E)(1)(b) of this section while conducting the inspection, and provide a copy of the completed checklist to the fire marshal.

(G) A designee, if any, designated by a police chief or other similar chief law enforcement officer under this section or section 3743.54 of the Revised Code shall be a law enforcement officer serving in the same law enforcement agency as the police chief or other similar chief law enforcement officer.

Effective Date: 06-29-2001

3743.54 Public fireworks exhibitions.

(A) A licensed exhibitor of fireworks may acquire fireworks for use at a public fireworks exhibition only from a licensed manufacturer of fireworks or licensed wholesaler of fireworks, and only in accordance with the procedures specified in this section and section 3743.55 of the Revised Code. A licensed exhibitor shall not acquire, for any purpose, 1.4G fireworks as designated by the fire marshal in rules adopted pursuant to division (A) of section 3743.05 of the Revised Code.

(B)(1) A licensed exhibitor of fireworks who wishes to conduct a public fireworks exhibition shall apply for approval to conduct the exhibition to whichever of the following persons is appropriate under the circumstances:

(a) Unless division (B)(1)(c) or (d) of this section applies, if the exhibition will take place in a municipal corporation, the approval shall be obtained from the fire chief, and from the police chief or other similar chief law enforcement officer, or the designee of the police chief or similar chief law enforcement officer, of the particular municipal corporation.

(b) Unless division (B)(1)(c) or (d) of this section applies, if the exhibition will take place in an unincorporated area, the approval shall be obtained from the fire chief of the particular township or township fire district, and from the police chief or other similar chief law enforcement officer, or the designee of the police chief or similar chief law enforcement officer, of the particular township or township police district.

(c) If fire protection services for the premises on which the exhibition will take place are provided in accordance with a contract between political subdivisions, the approval shall be obtained from the fire chief of the political subdivision providing the fire protection services and from the police chief or other similar chief law enforcement officer, or the designee of the police chief or similar chief law enforcement officer, of the political subdivision in which the premises on which the exhibition will take place are located. If police services for the premises on which the exhibition will take place are provided in accordance with a contract between political subdivisions, the approval shall be obtained from the police chief or other similar chief law enforcement officer, or the designee of the police chief or similar chief law enforcement officer, of the political subdivision providing the police services and from the fire chief of the political subdivision in which the premises on which the exhibition will take place are located. If both fire and police protection services for the premises on which the exhibition will take place are provided in accordance with a contract between political subdivisions, the approval shall be obtained from the fire chief, and from the police chief or other similar chief law enforcement officer, or the designee of the police chief or similar chief law enforcement officer, of the political subdivisions providing the police and fire protection services.

(d) If there is no municipal corporation, township, or township fire district fire department, no municipal corporation, township, or township police district police department, and no contract for police or fire protection services between political subdivisions covering the premises on which the exhibition will take place, the approval shall be obtained from the fire prevention officer, and from the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, having jurisdiction over the premises.

(2) The approval required by division (B)(1) of this section shall be evidenced by the fire chief or fire prevention officer and by the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, signing a permit for the exhibition. The fire marshal shall prescribe the form of exhibition permits and distribute copies of the form to fire chiefs, to fire prevention officers, and to police chiefs or other similar chief law enforcement officers of municipal corporations, townships, or township police districts, or their designees, in this state. Any exhibitor of fireworks who wishes to conduct a public fireworks exhibition may obtain a copy of the form from the fire marshal or, if it is available, from a fire chief, a fire prevention officer, a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district, or a designee of such a police chief or other similar chief law enforcement officer.

(C) Before a permit is signed and issued to a licensed exhibitor of fireworks, the fire chief or fire prevention officer, in consultation with the police chief or other similar chief law enforcement officer or with the designee of the police chief or other similar chief law enforcement officer, shall inspect the premises on which the exhibition will take place and shall determine that, in fact, the applicant for the permit is a licensed exhibitor of fireworks. Each applicant shall show the applicant's license as an exhibitor of fireworks to the fire chief or fire prevention officer.

The fire chief or fire prevention officer, and the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, shall give approval to conduct a public fireworks exhibition only if satisfied, based on the inspection, that the premises on which the exhibition will be conducted allow the exhibitor to comply with the rules adopted by the fire marshal pursuant to divisions (B) and (E) of section 3743.53 of the Revised Code and that the applicant is, in fact, a licensed exhibitor of fireworks. The fire chief or fire prevention officer, in consultation with the police chief or other similar chief law enforcement officer or with the designee of the police chief or other similar chief law enforcement officer, may inspect the premises immediately prior to the exhibition to determine if the exhibitor has complied with the rules, and may revoke a permit for noncompliance with the rules.

(D) If the legislative authorities of their political subdivisions have prescribed a fee for the issuance of a permit for a public fireworks exhibition, fire chiefs or fire prevention officers, and police chiefs, other similar chief law enforcement officers, or their designee, shall not issue a permit until the exhibitor pays the requisite fee.

Each exhibitor shall provide an indemnity bond in the amount of at least one million dollars, with surety satisfactory to the fire chief or fire prevention officer and to the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, conditioned for the payment of all final judgments that may be rendered against the exhibitor on account of injury, death, or loss to persons or property emanating from the fireworks exhibition, or proof of insurance coverage of at least one million dollars for liability arising from injury, death, or loss to persons or property emanating from the fireworks exhibition. The legislative authority of a political subdivision

in which a public fireworks exhibition will take place may require the exhibitor to provide an indemnity bond or proof of insurance coverage in amounts greater than those required by this division. Fire chiefs or fire prevention officers, and police chiefs, other similar chief law enforcement officers, or their designee, shall not issue a permit until the exhibitor provides the bond or proof of the insurance coverage required by this division or by the political subdivision in which the fireworks exhibition will take place.

(E)(1) Each permit for a fireworks exhibition issued by a fire chief or fire prevention officer, and by the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, shall contain a distinct number, designate the municipal corporation, township, or township fire or police district of the fire chief, fire prevention officer, police chief or other similar chief law enforcement officer, or designee of the police chief or other similar chief law enforcement officer, and identify the certified fire safety inspector, fire chief, or fire prevention officer who will be present before, during, and after the exhibition, where appropriate. A copy of each permit issued shall be forwarded by the fire chief or fire prevention officer, and by the police chief or other similar chief law enforcement officer, or the designee of the police chief or other similar chief law enforcement officer, issuing it to the fire marshal, who shall keep a record of the permits received. A permit is not transferable or assignable.

(2) Each fire chief, fire prevention officer, police chief or other similar chief law enforcement officer, and designee of a police chief or other similar chief law enforcement officer shall keep a record of issued permits for fireworks exhibitions. In this list, the fire chief, fire prevention officer, police chief or other similar chief law enforcement officer, and designee of a police chief or other similar chief law enforcement officer shall list the name of the exhibitor, the exhibitor's license number, the premises on which the exhibition will be conducted, the date and time of the exhibition, and the number and political subdivision designation of the permit issued to the exhibitor for the exhibition.

(F) The governing authority having jurisdiction in the location where an exhibition is to take place shall require that a certified fire safety inspector, fire chief, or fire prevention officer be present before, during, and after the exhibition, and shall require the certified fire safety inspector, fire chief, or fire prevention officer to inspect the premises where the exhibition is to take place and determine whether the exhibition is in compliance with this chapter.

Effective Date: 06-29-2001

3743.541 Fireworks incidents.

(A) The appropriate certified fire safety inspector, fire chief, or fire prevention officer or appropriate state or local law enforcement authority with jurisdiction over a fireworks incident site shall immediately notify the state fire marshal, the state fire marshal's designee, or a member of the state fire marshal's staff regarding the occurrence of the fireworks incident and the location of the fireworks incident site.

(B) At any time after a fireworks incident occurs, unless the fire marshal otherwise delegates the fire marshal's authority to the appropriate state or local law enforcement authority with jurisdiction over the fireworks incident site, the fire marshal, the fire marshal's designee, or a member of the fire marshal's staff shall supervise and coordinate the investigation of the fireworks incident and supervise any dismantling, repositioning, or other disturbance of fireworks, associated equipment or other materials, or other items within the fireworks incident site or of any evidence related to the fireworks incident.

(C) A state or local law enforcement officer, certified fire safety inspector, fire chief, or fire prevention officer, or any person authorized and supervised by a state or local law enforcement officer, certified fire safety inspector, fire chief, or fire prevention officer, prior to the arrival of the fire marshal, the fire marshal's designee, or a member of the fire marshal's staff at a fireworks incident site, may dismantle, reposition, or move any fireworks, any associated equipment or other materials, or any other items found within the site or any evidence related to the fireworks incident only as necessary to prevent an imminent fire, imminent explosion, or similar threat of additional injury or death to any member of the public at the site.

Effective Date: 06-29-2001

3743.55 Exhibitor required to display license to seller.

A licensed exhibitor of fireworks who has acquired a permit for a public fireworks exhibition pursuant to section 3743.54 of the Revised Code may acquire fireworks for use in the particular fireworks exhibition only if, prior to purchasing the fireworks, the exhibitor shows to the licensed manufacturer or wholesaler his license as an exhibitor of fireworks and the permit issued pursuant to section 3743.54 of the Revised Code. The manufacturer or wholesaler shall record the exhibitor's license number and the permit number and political subdivision designation in its retail sales record.

Effective Date: 12-01-1986

3743.56 Annual registration of exhibitor's employees.

Each fireworks exhibitor licensed under section 3743.51 of the Revised Code shall register annually with the fire marshal all employees who assist the licensed exhibitor in conducting fireworks exhibitions. Once registered, such an employee may be employed by any other licensed fireworks exhibitor, without the need for that other licensed exhibitor to register the employee with the fire marshal. The fire marshal shall maintain a record of licensed exhibitors and registered employees and make it available, upon request, to any law enforcement agency.

The fire marshal shall adopt rules under Chapter 119. of the Revised Code that establish appropriate fees for the registration of employees of licensed exhibitors and otherwise implement this section.

In addition to the annual registration of employees required by this section, a licensed exhibitor shall file an application to register a new employee, unless the new employee is already registered under this section, not later than seven days after the date on which the employee is hired.

Effective Date: 06-29-2001

3743.57 Fire marshal's fireworks training and education fund.

(A) All fees collected by the fire marshal for licenses or permits issued pursuant to this chapter shall be deposited into the state fire marshal's fund, and interest earned on the amounts in the fund shall be credited by the treasurer of state to the fund.

(B) The fire marshal shall in the fire marshal's discretion use amounts in the state fire marshal's fund for fireworks training and education purposes, including, but not limited to,

the creation of educational and training programs, attendance by the fire marshal and the fire marshal's employees at conferences and seminars, the payment of travel and meal expenses associated with such attendance, participation by the fire marshal and the fire marshal's employees in committee meetings and other meetings related to pyrotechnic codes, and the payment of travel and meal expenses associated with such participation. The use of the fund shall comply with rules of the department of commerce, policies and procedures established by the director of budget and management, and all other applicable laws.

Effective Date: 06-29-2001; 06-30-2005

3743.58 Shipping or transporting fireworks.

The fire marshal shall adopt rules governing the transportation of fireworks on the highways of this state. These rules shall be substantially equivalent to regulations of the United States department of transportation governing the transportation of fireworks, and to the fireworks transportation provisions of the most recent versions of chapters 1123, 1124, and 1126 of the most recent national fire protection association standards. Fireworks shall be transported on the highways of this state only in accordance with such rules. Such rules shall not require that shipments of fireworks required by this Chapter to be made directly out of state be made solely by common carriers licensed by the federal government. No requirements of this Chapter that fireworks be shipped or transported directly out of this state require that these shipments be made personally by the seller or solely by common carriers licensed by the federal government.

Effective Date: 06-29-2001

3743.59 Variances.

(A) Upon application by an affected party, the fire marshal may grant variances from the requirements of this chapter or from the requirements of rules adopted pursuant to this chapter if the fire marshal determines that a literal enforcement of the requirement will result in practical difficulty in complying with the requirements of this chapter or the rules adopted pursuant to this chapter and that the variance will not be contrary to the public health, safety, or welfare. A variance shall not be granted to a person who is initially licensed as a manufacturer or wholesaler of fireworks after June 14, 1988.

(B) The fire marshal may authorize a variance from the prohibitions in this chapter against the possession and use of pyrotechnic compounds to a person who submits proof that the person is certified and in good standing with the Ohio state board of education, provided that the pyrotechnic compounds are used for educational purposes only, or are used only at an authorized educational function approved by the governing board that exercises authority over the educational function.

(C) The fire marshal may authorize a variance from the prohibitions in this chapter against the possession and use of pyrotechnic compounds to a person who possesses and uses the pyrotechnic compounds for personal and noncommercial purposes as a hobby. The fire marshal may rescind a variance authorized under this division at any time, exclusively at the fire marshal's discretion.

Effective Date: 06-29-2001; 09-29-2005

3743.60 Prohibitions.

(A) No person shall manufacture fireworks in this state unless it is a licensed manufacturer of fireworks, and no person shall operate a fireworks plant in this state unless it has been issued a license as a manufacturer of fireworks for the particular fireworks plant.

(B) No person shall operate a fireworks plant in this state after its license as a manufacturer of fireworks for the particular fireworks plant has expired, been denied renewal, or been revoked, unless a new license has been obtained.

(C) No licensed manufacturer of fireworks, during the effective period of its licensure, shall construct, locate, or relocate any buildings or other structures on the premises of its fireworks plant, make any structural change or renovation in any building or other structure on the premises of its fireworks plant, or change the nature of its manufacturing of fireworks so as to include the processing of fireworks without first obtaining a written authorization from the fire marshal pursuant to division (B) of section 3743.04 of the Revised Code.

(D) No licensed manufacturer of fireworks shall manufacture fireworks, possess fireworks for sale at wholesale or retail, or sell fireworks at wholesale or retail, in a manner not authorized by division (C) of section 3743.04 of the Revised Code.

(E) No licensed manufacturer of fireworks shall knowingly fail to comply with the rules adopted by the fire marshal pursuant to section 3743.05 of the Revised Code or the requirements of section 3743.06 of the Revised Code.

(F) No licensed manufacturer of fireworks shall fail to maintain complete inventory, wholesale sale, and retail records as required by section 3743.07 of the Revised Code, or to permit inspection of these records or the premises of a fireworks plant pursuant to section 3743.08 of the Revised Code.

(G) No licensed manufacturer of fireworks shall fail to comply with an order of the fire marshal issued pursuant to division (B)(1) of section 3743.08 of the Revised Code, within the specified period of time.

(H) No licensed manufacturer of fireworks shall fail to comply with an order of the fire marshal issued pursuant to division (B)(2) of section 3743.08 of the Revised Code until the nonconformities are eliminated, corrected, or otherwise remedied or the seventy-two hour period specified in that division has expired, whichever first occurs.

(I) No person shall smoke or shall carry a pipe, cigarette, or cigar, or a match, lighter, other flame-producing item, or open flame on, or shall carry a concealed source of ignition into, the premises of a fireworks plant, except as smoking is authorized in specified lunchrooms or restrooms by a manufacturer pursuant to division (C) of section 3743.06 of the Revised Code.

(J) No person shall have possession or control of, or be under the influence of, any intoxicating liquor, beer, or controlled substance, while on the premises of a fireworks plant.

Effective Date: 06-29-2001

3743.61 Wholesaler restrictions.

(A) No person, except a licensed manufacturer of fireworks engaging in the wholesale sale of fireworks as authorized by division (C)(2) of section 3743.04 of the Revised Code, shall operate as a wholesaler of fireworks in this state unless it is a licensed wholesaler of fireworks, or shall operate as a wholesaler of fireworks at any location in this state unless it has been issued a license as a wholesaler of fireworks for the particular location.

(B) No person shall operate as a wholesaler of fireworks at a particular location in this state after its license as a wholesaler of fireworks for the particular location has expired, been denied renewal, or been revoked, unless a new license has been obtained.

(C) No licensed wholesaler of fireworks, during the effective period of its licensure, shall perform any construction, or make any structural change or renovation, on the premises on which the fireworks are sold without first obtaining a written authorization from the fire marshal pursuant to division (B) of section 3743.17 of the Revised Code.

(D) No licensed wholesaler of fireworks shall possess fireworks for sale at wholesale or retail, or sell fireworks at wholesale or retail, in a manner not authorized by division (C) of section 3743.17 of the Revised Code.

(E) No licensed wholesaler of fireworks shall knowingly fail to comply with the rules adopted by the fire marshal pursuant to section 3743.18 or the requirements of section 3743.19 of the Revised Code.

(F) No licensed wholesaler of fireworks shall fail to maintain complete inventory, wholesale sale, and retail records as required by section 3743.20 of the Revised Code, or to permit inspection of these records or the premises of the wholesaler pursuant to section 3743.21 of the Revised Code.

(G) No licensed wholesaler of fireworks shall fail to comply with an order of the fire marshal issued pursuant to division (B)(1) of section 3743.21 of the Revised Code, within the specified period of time.

(H) No licensed wholesaler of fireworks shall fail to comply with an order of the fire marshal issued pursuant to division (B)(2) of section 3743.21 of the Revised Code until the nonconformities are eliminated, corrected, or otherwise remedied or the seventy-two hour period specified in that division has expired, whichever first occurs.

(I) No person shall smoke or shall carry a pipe, cigarette, or cigar, or a match, lighter, other flame-producing item, or open flame on, or shall carry a concealed source of ignition into, the premises of a wholesaler of fireworks, except as smoking is authorized in specified lunchrooms or restrooms by a wholesaler pursuant to division (D) of section 3743.19 of the Revised Code.

(J) No person shall have possession or control of, or be under the influence of, any intoxicating liquor, beer, or controlled substance, while on the premises of a wholesaler of fireworks.

Effective Date: 06-29-2001

3743.63 Purchaser restrictions.

(A) No person who resides in another state and purchases fireworks in this state shall obtain possession of the fireworks in this state unless the person complies with section 3743.44 of the Revised Code, provided that knowingly making a false statement on the fireworks purchaser form is not a violation of this section but is a violation of section 2921.13 of the Revised Code.

(B) No person who resides in another state and who purchases fireworks in this state shall obtain possession of fireworks in this state other than from a licensed manufacturer or wholesaler, or fail, when transporting the fireworks, to transport them directly out of this state within seventy-two hours after the time of their purchase. No such person shall give or sell to any other person in this state fireworks that the person has acquired in this state.

(C) No person who resides in this state and purchases fireworks in this state shall obtain possession of the fireworks in this state unless the person complies with section 3743.45 of the Revised Code, provided that knowingly making a false statement on the fireworks purchaser form is not a violation of this section but is a violation of section 2921.13 of the Revised Code.

(D) No person who resides in this state and who purchases fireworks in this state under section 3743.45 of the Revised Code shall obtain possession of fireworks in this state other than from a licensed manufacturer or licensed wholesaler, or fail, when transporting the fireworks, to transport them directly out of this state within forty-eight hours after the time of their purchase. No such person shall give or sell to any other person in this state fireworks that the person has acquired in this state.

Effective Date: 07-01-1996

3743.64 Fireworks exhibitions and exhibitors - prohibited activities.

(A) No person shall conduct a fireworks exhibition in this state or act as an exhibitor of fireworks in this state unless the person is a licensed exhibitor of fireworks.

(B) No person shall conduct a fireworks exhibition in this state or act as an exhibitor of fireworks in this state after the person's license as an exhibitor of fireworks has expired, been denied renewal, or been revoked, unless a new license has been obtained.

(C) No licensed exhibitor of fireworks shall fail to comply with the applicable requirements of the rules adopted by the fire marshal pursuant to divisions (B) and (E) of section 3743.53 of the Revised Code or to comply with divisions (C) and (D) of that section.

(D) No licensed exhibitor of fireworks shall conduct a fireworks exhibition unless a permit has been secured for the exhibition pursuant to section 3743.54 of the Revised Code or if a permit so secured is revoked by a fire chief or fire prevention officer, in consultation with a police chief or other similar chief law enforcement officer of a municipal corporation, township, or township police district or with a designee of such a police chief or other similar chief law enforcement officer, pursuant to that section.

(E) No licensed exhibitor of fireworks shall acquire fireworks for use at a fireworks exhibition other than in accordance with sections 3743.54 and 3743.55 of the Revised Code.

(F) No licensed exhibitor of fireworks or other person associated with the conduct of a fireworks exhibition shall have possession or control of, or be under the influence of, any intoxicating liquor, beer, or controlled substance while on the premises on which the exhibition is being conducted.

(G) No licensed exhibitor of fireworks shall permit an employee to assist the licensed exhibitor in conducting fireworks exhibitions unless the employee is registered with the fire marshal under section 3743.56 of the Revised Code.

(H) Except as provided in division (C) of section 3743.541 of the Revised Code, no person shall knowingly, or knowingly permit another person to, dismantle, reposition, or otherwise disturb any fireworks, associated equipment or materials, or other items within a fireworks incident site, or any evidence related to a fireworks incident, at any time after that person has reason to believe a fireworks incident has occurred, before the state fire marshal, the state fire marshal's designee, a member of the state fire marshal's staff, or other appropriate state or local law enforcement authorities permit in accordance with section 3743.541 of the Revised Code the dismantling, repositioning, or other disturbance of the fireworks, equipment, materials, or items within the fireworks incident site or of any evidence related to the fireworks incident.

Effective Date: 06-29-2001

3743.65 Possession, sale and use restrictions.

(A) No person shall possess fireworks in this state or shall possess for sale or sell fireworks in this state, except a licensed manufacturer of fireworks as authorized by sections 3743.02 to 3743.08 of the Revised Code, a licensed wholesaler of fireworks as authorized by sections 3743.15 to 3743.21 of the Revised Code, a shipping permit holder as authorized by section 3743.40 of the Revised Code, an out-of-state resident as authorized by section 3743.44 of the Revised Code, a resident of this state as authorized by section 3743.45 of the Revised Code, or a licensed exhibitor of fireworks as authorized by sections 3743.50 to 3743.55 of the Revised Code, and except as provided in section 3743.80 of the Revised Code.

(B) Except as provided in section 3743.80 of the Revised Code and except for licensed exhibitors of fireworks authorized to conduct a fireworks exhibition pursuant to sections 3743.50 to 3743.55 of the Revised Code, no person shall discharge, ignite, or explode any fireworks in this state.

(C) No person shall use in a theater or public hall, what is technically known as fireworks showers, or a mixture containing potassium chlorate and sulphur.

(D) No person shall sell fireworks of any kind to a person under eighteen years of age.

(E) No person shall advertise 1.4G fireworks for sale. A sign located on a seller's premises identifying the seller as a seller of fireworks is not the advertising of fireworks for sale.

(F) No person, other than a licensed manufacturer, licensed wholesaler, licensed exhibitor, or shipping permit holder, shall possess 1.3G fireworks in this state.

(G) Except as otherwise provided in division (J) of section 3743.06 and division (K) of section 3743.19 of the Revised Code, no person shall knowingly disable a fire suppression system as defined in section 3781.108 of the Revised Code on the premises of a fireworks plant of

a licensed manufacturer of fireworks or on the premises of the business operations of a licensed wholesaler of fireworks.

Effective Date: 06-29-2001; 09-29-2005

3743.66 Limiting shipping or transporting.

(A) No person shall transport fireworks in this state except in accordance with rules adopted by the fire marshal pursuant to section 3743.58 of the Revised Code.

(B) As used in this division, “fireworks” includes only 1.3G and 1.4G fireworks. No person shall ship fireworks into this state by mail, parcel post, or common carrier unless the person possesses a valid shipping permit issued under section 3743.40 of the Revised Code, and the fireworks are shipped directly to the holder of a license issued under section 3743.03, 3743.16, or 3743.51 of the Revised Code.

No person shall ship fireworks within this state by mail, parcel post, or common carrier unless the fireworks are shipped directly to the holder of a license issued under section 3743.03, 3743.16, or 3743.51 of the Revised Code.

Effective Date: 06-29-2001

3743.68 Violators.

(A) The fire marshal, an assistant fire marshal, or a certified fire safety inspector may arrest, or may cause the arrest of, any person whom the fire marshal, assistant fire marshal, or certified fire safety inspector finds in the act of violating, or who the fire marshal, assistant fire marshal, or certified fire safety inspector has reasonable cause to believe has violated, sections 3743.60 to 3743.66 of the Revised Code. Any arrest shall be made in accordance with statutory and constitutional provisions governing arrests by law enforcement officers.

(B) If the fire marshal, an assistant fire marshal, or certified fire safety inspector has probable cause to believe that fireworks are being manufactured, sold, possessed, transported, or used in violation of this chapter, the fire marshal, assistant fire marshal, or certified fire safety inspector may seize the fireworks. Any seizure of fireworks shall be made in accordance with statutory and constitutional provisions governing searches and seizures by law enforcement officers. The fire marshal’s or certified fire safety inspector’s office shall impound at the site or safely keep seized fireworks pending the time they are no longer needed as evidence. A sample of the seized fireworks is sufficient for evidentiary purposes. The remainder of the seized fireworks may be disposed of pursuant to an order from a court of competent jurisdiction after notice and a hearing.

Fireworks manufactured, sold, possessed, transported, or used in violation of this chapter shall be forfeited by the violator. The fire marshal’s or certified fire safety inspector’s office shall dispose of seized fireworks pursuant to the procedures specified in sections 2981.11 to 2981.13 of the Revised Code for the disposal of forfeited property by law enforcement agencies, and the fire marshal or that office is not liable for claims for the loss of or damages to the seized fireworks.

(C) This section does not affect the authority of a peace officer, as defined in section 2935.01 of the Revised Code, to make arrests for violations of this chapter or to seize fireworks manufactured, sold, possessed, transported, or used in violation of this chapter.

(D) Any fines imposed for a violation of this chapter relating to the sale, purchase, possession, or discharge of fireworks shall be distributed in the following manner if a municipal corporation, county, or township either filed or enforced the complaint regarding the violation. One-half of the amount of the fine shall be distributed to the municipal corporation, county, or township which filed the complaint regarding the violation and one-half of the amount of the fine shall be distributed to the municipal corporation, county, or township which enforced the complaint. If the same municipal corporation, county, or township both filed the complaint regarding the violation and enforced the complaint, the entire amount of the fine shall be distributed to that municipal corporation, county, or township.

Effective Date: 06-29-2001; 07-01-2007

3743.70 No license issued to felon.

The fire marshal shall not issue an initial license or permit under this chapter on or after the effective date of this section if the applicant for the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the applicant for the license or permit, has been convicted of or pleaded guilty to a felony under the laws of this state, another state, or the United States. The fire marshal shall revoke or deny renewal of a license or permit first issued under this chapter on or after the effective date of this section if the holder of the license or permit, or any individual holding, owning, or controlling a five per cent or greater beneficial or equity interest in the holder of the license or permit, is convicted of or pleads guilty to a felony under the laws of this state, another state, or the United States.

Effective Date: 06-29-2001

3743.75 Moratorium on licenses.

(A) During the period beginning on June 29, 2001, and ending on December 15, 2011, the state fire marshal shall not do any of the following:

(1) Issue a license as a manufacturer of fireworks under sections 3743.02 and 3743.03 of the Revised Code to a person for a particular fireworks plant unless that person possessed such a license for that fireworks plant immediately prior to June 29, 2001;

(2) Issue a license as a wholesaler of fireworks under sections 3743.15 and 3743.16 of the Revised Code to a person for a particular location unless that person possessed such a license for that location immediately prior to June 29, 2001;

(3) Except as provided in division (B) of this section, approve the geographic transfer of a license as a manufacturer or wholesaler of fireworks issued under this chapter to any location other than a location for which a license was issued under this chapter immediately prior to June 29, 2001.

(B) Division (A)(3) of this section does not apply to a transfer that the state fire marshal approves under division (F) of section 3743.17 of the Revised Code.

(C) Notwithstanding section 3743.59 of the Revised Code, the prohibited activities established in divisions (A)(1) and (2) of this section, geographic transfers approved pursuant to division (F) of section 3743.17 of the Revised Code, and storage locations

allowed pursuant to division (I) of section 3743.04 of the Revised Code or division (G) of section 3743.17 of the Revised Code are not subject to any variance, waiver, or exclusion.

(D) As used in division (A) of this section:

(1) “Person” includes any person or entity, in whatever form or name, that acquires possession of a manufacturer or wholesaler of fireworks license issued pursuant to this chapter by transfer of possession of a license, whether that transfer occurs by purchase, assignment, inheritance, bequest, stock transfer, or any other type of transfer, on the condition that the transfer is in accordance with division (D) of section 3743.04 of the Revised Code or division (D) of section 3743.17 of the Revised Code and is approved by the fire marshal.

(2) “Particular location” includes a licensed premises and, regardless of when approved, any storage location approved in accordance with section 3743.04 or 3743.17 of the Revised Code.

(3) “Such a license” includes a wholesaler of fireworks license that was issued in place of a manufacturer of fireworks license that existed prior to June 29, 2001, and was requested to be canceled by the license holder pursuant to division (D) of section 3743.03 of the Revised Code.

Effective Date: 06-29-2001; 03-31-2005; 09-29-2005; 2007 HB119 09-29-2007

3743.80 Exemptions.

This chapter does not prohibit or apply to the following:

(A) The manufacture, sale, possession, transportation, storage, or use in emergency situations, of pyrotechnic signaling devices and distress signals for marine, aviation, or highway use;

(B) The manufacture, sale, possession, transportation, storage, or use of fusees, torpedoes, or other signals necessary for the safe operation of railroads;

(C) The manufacture, sale, possession, transportation, storage, or use of blank cartridges in connection with theaters or shows, or in connection with athletics as signals or for ceremonial purposes;

(D) The manufacture for, the transportation, storage, possession, or use by, or sale to the armed forces of the United States and the militia of this state of pyrotechnic devices;

(E) The manufacture, sale, possession, transportation, storage, or use of toy pistols, toy canes, toy guns, or other devices in which paper or plastic caps containing twenty-five hundredths grains or less of explosive material are used, provided that they are constructed so that a hand cannot come into contact with a cap when it is in place for explosion, or apply to the manufacture, sale, possession, transportation, storage, or use of those caps;

(F) The manufacture, sale, possession, transportation, storage, or use of novelties and trick noisemakers, auto burglar alarms, or model rockets and model rocket motors designed, sold, and used for the purpose of propelling recoverable aero models;

(G) The manufacture, sale, possession, transportation, storage, or use of wire sparklers.

(H) The conduct of radio-controlled special effect exhibitions that use an explosive black powder charge of not more than one-quarter pound per charge, and that are not connected in any manner to propellant charges, provided that the exhibition complies with all of following:

(1) No explosive aerial display is conducted in the exhibition;

(2) The exhibition is separated from spectators by not less than two hundred feet;

(3) The person conducting the exhibition complies with regulations of the bureau of alcohol, tobacco, and firearms of the United States department of the treasury and the United States department of transportation with respect to the storage and transport of the explosive black powder used in the exhibition.

Effective Date: 06-29-2001

3743.99 Penalty.

(A) Whoever violates division (A) or (B) of section 3743.60 or division (H) of section 3743.64 of the Revised Code is guilty of a felony of the third degree.

(B) Whoever violates division (C) or (D) of section 3743.60, division (A), (B), (C), or (D) of section 3743.61, or division (A) or (B) of section 3743.64 of the Revised Code is guilty of a felony of the fourth degree.

(C) Whoever violates division (E), (F), (G), (H), (I), or (J) of section 3743.60, division (E), (F), (G), (H), (I), or (J) of section 3743.61, section 3743.63, division (D), (E), (F), or (G) of section 3743.64, division (A), (B), (C), (D), or (F) of section 3743.65, or section 3743.66 of the Revised Code is guilty of a misdemeanor of the first degree. If the offender previously has been convicted of or pleaded guilty to a violation of division (I) of section 3743.60 or 3743.61 of the Revised Code, a violation of either of these divisions is a felony of the fifth degree.

(D) Whoever violates division (C) of section 3743.64 of the Revised Code is guilty of a misdemeanor of the first degree. In addition to any other penalties that may be imposed on a licensed exhibitor of fireworks under this division and unless the third sentence of this division applies, the person's license as an exhibitor of fireworks or as an assistant exhibitor of fireworks shall be suspended, and the person is ineligible to apply for either type of license, for a period of five years. If the violation of division (C) of section 3743.64 of the Revised Code results in serious physical harm to persons or serious physical harm to property, the person's license as an exhibitor of fireworks or as an assistant exhibitor of fireworks shall be revoked, and that person is ineligible to apply for a license as or to be licensed as an exhibitor of fireworks or as an assistant exhibitor of fireworks in this state.

(E) Whoever violates division (G) of section 3743.65 of the Revised Code is guilty of a felony of the fifth degree.

Effective Date: 06-29-2001

2013

State Fire Marshal Documents

Permit

Outdoor Fireworks Checklist

Indoor Fireworks Checklist

Continuing Education Attendance Roster

Exhibitor Examination Schedule

Exhibitor Application

Exhibitor Application to Register a New Employee

Out-of-State Shipping Application

Fireworks Purchaser Form

2013 Continuing Education Schedule

Department of Commerce
Division of State Fire Marshal
8895 East Main Street, Reynoldsburg, Ohio 43068
(614) 752-7126 Fax (614) 995-4206 TTY/TDD 800-750-0750
www.com.ohio.gov

Permit # XXXX

☐ **Fireworks 1.1G, 1.3G, 1.4G**
☐ **Pyrotechnics 1.4S**
☐ **Flame Effects**

Application for Exhibition Permit

Permit applications must be accompanied by all support documents required by Ohio Revised Code 3743.54 and Ohio Administrative Code 1301:7-7-33. This signed document is preliminary authorization for a fireworks exhibition to take place.

Exhibition

Location of Exhibition Site/Event: _____

Address _____ City _____ County _____

Date of Exhibition _____ Time of Exhibition _____ Rain Date _____

Sponsor _____ Sponsor Contact _____ Phone Number _____

Product

Company Supplying Fireworks _____

Phone Number _____ Ohio Manufacturer/Wholesaler/Out-of State Shipper ID _____

Address _____ City _____ State _____

Exhibitor

Licensed Exhibitor Required? ☐ **Yes** ☐ **No** Ohio Exhibitor ID(s) _____

Please mark license catagory ☐ Fireworks NFPA 1123 / NFPA 1124 ☐ Special Effects NFPA 1126 ☐ Flame NFPA 160

Exhibitor Name _____ Phone Number _____

Address _____ City _____ State _____

Company Affiliation (if applicable) _____

I understand that I, as the Exhibitor of this exhibition, shall be held strictly responsible for any damage to persons or properties resulting from fireworks, pyrotechnics, or flame effects used at this exhibition. I understand and will comply with all applicable laws and rules.

Exhibitor Signature _____ Date _____

Liability

Insurance/Bonding Company _____ Coverage Amount _____

Address _____ City _____ State _____

Inspection / Approval

List certified Fire Safety Inspector, Fire Chief, or Fire Prevention Officer to be present before, during, and after exhibition.

Before: _____ During: _____ After: _____

This form must be signed and approved by the Fire Authority Having Jurisdiction (AHJ) (and Law Enforcement AHJ if outdoor exhibition). Per ORC 3743.55, the exhibitor is required to have this document to purchase fireworks for the exhibition. The completed permit application and completed checklist constitute final approval by the AHJ.

Signature of Fire Chief or Designee _____ **Date** _____

Print Name _____ **Fire Dept. Name & ID #** _____

Law Enf. AHJ Signature _____ **Date** _____

Print Name _____ **Municipality/Twnshp/County** _____

Provide signed copies of this document and the checklist to the Exhibitor,Fire AHJ, Law Enforcement AHJ, and Ohio State Fire Marshal

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Department of Commerce
Division of State Fire Marshal
8895 East Main Street, Reynoldsburg, Ohio 43068
(614) 752-7126 Fax (614) 995-4206
TTY/TDD 800-750-0750
www.com.ohio.gov

Checklist for Outdoor Exhibition of 1.3G, 1.4G, or 1.4S Fireworks

Permit # _____

Date & Time of Exhibition	**Exhibitor's Name**
County & City of Exhibition	**Exhibitor's License #**
FD Name & FDID #	**Exhibitor's Phone**
Exact Location of Event:	

**** Initialing each step indicates that step has been completed ****	Fire Official Initial	Exhibitor Initial
1. Was insurance or bond of $1,000,000.00 or more verified?		
2. Was product purchase verified to be from a licensed Ohio Wholesaler, Ohio Manufacturer, or Out-of-State Shipper with a shipping permit? License # _____		
3. Has exhibitor identified names of all assistants who will be present? Has exhibitor provided copies of all licenses and permits?		
4. Was the site inspection conducted prior to issuing permit? Date of site inspection: _____		
5. Have locations, distances, and details of the site plan been verified for accuracy?		
6. Does the proposed location for temporary storage (up to 14 days) of fireworks comply with this rule?		
7. Is adequate fire protection available?		
8. Does distance to spectator area comply with a minimum of 70 feet per inch of largest shell, and/or close proximity separation distances for audiences in accordance with NFPA 1126?		
9. Is the display site selection in accordance with of NFPA 1123 (Chapter 5, site selection) and/or NFPA 1126 as listed in rule 1301:7-7-47 of the Administrative Code?		
10. When the fireworks arrived at the site, were they in a properly placarded vehicle/trailer?		
11. If the show requires reloading of fireworks, are the extra fireworks properly secured in a ready box, 25 feet upwind of the mortars?		
12. Was the condition of mortars checked for damage, dents, broken plugs, etc?		
13. Are all shells greater than or equal to 8" in diameter provided with electronic ignition?		
14. Are the mortars made of approved material, of sufficient strength, length and durability to cause shells to be propelled to safe altitudes?		
15. Are buried mortars installed to comply with NFPA 1123, Section 4.4 as listed in rule 1301:7-7- 47 of the Administrative Code?		
16. Are mortar racks and/or bundles that are not inherently stable, secured or braced to stabilize them?		
17. Are the racks properly positioned to prevent them from firing towards the spectators?		
18. Are the racks braced in a manner that secures the balance of the mortars should one fail?		
19. Are all security persons and monitors in place and positioned to prevent unauthorized persons in discharge site?		
20. Is smoking or open flame prohibited where fireworks are present?		
21. Have all mortars, mortar racks, bundles, box items, ground displays, cakes, and candle placements been examined, and any items not inherently stable secured properly or braced for stability?		
22. Are only the licensed exhibitors and designated registered assistants within the discharge perimeter?		

I acknowledge that I understand and have followed all of the requirements and procedures described in this checklist. To the best of my knowledge, the information included in this document is complete and accurate. Procedures described herein have been followed for this exhibition of fireworks in consultation with a Police Chief/Law Enforcement Officer.

Fire Chief/Fire Prevention Officer: _____ Date: _____

Ohio Licensed Exhibitor _____ Date _____

Copy completed form to Exhibitor, Fire Chief/Fire Prevention Officer, Law Enforcement Officer, and State Fire Marshal

Code References

1. In accordance with division (D) of section 3743.54 of the Revised Code
2. In accordance with division (A) of section 3743.54 of the Revised Code
3. In accordance with paragraph (H)(7)(3308.7)of this rule
4. In accordance with division (C) of section 3743.54 of the Revised Code
5. In accordance with paragraph (H)(4)(3308.4) of this rule
6. In accordance with paragraph (H)(7)(3308.7) and paragraph (J)(1)(3310.1) of this rule
7. In accordance with NFPA 1123, Section 8.1 and 8.1.1, NFPA 1126 Section 8.1 and A.8.1.6.1 as listed in rule 1301:7-7-47 of the Administrative Code
8. In accordance with NFPA 1123, Section 5.1.3.1, NFPA 1126, Section 8.4 as listed in rule 1301:7-7-47 of the Administrative Code
9. Must comply with NFPA 1123, Table 5.1.3.1 and / or NFPA 1126 Section 6.3 as listed in rule 1301:7-7-47 of the Administrative Code - In accordance with paragraph (H)(4)(3308.4) of this rule
10. In accordance with paragraph (I)(1)(3309.1) of this rule
11. In accordance with NFPA 1123, Section 4.2.4.3 as listed in rule 1301:7-7-47 of the Administrative Code
12. In accordance with NFPA 1123, Section 4.3.1.1 as listed in rule 1301:7-7-47 of the Administrative Code
13. In accordance with division (C) of section 3743.53 of the Revised Code
14. In accordance with NFPA 1123, Section 4.3.7 as listed in rule 1301:7-7-47 of the Administrative Code
15. In accordance with NFPA 1123, Section 4.4 as listed in rule 1301:7-7- 47 of the Administrative Code
16. In accordance with NFPA 1123, Section 4.5.5 as listed in rule 1301:7-7-47 of the Administrative Code and paragraph (H)(10)(b)(3308.10.2) of this rule
17. In accordance with NFPA 1123, Section 5.2.1.3.1 and Section 4.3.2 as listed in rule 1301:7-7-47 of the Administrative Code
18. In accordance with NFPA 1123, Section 4.6.1 as listed in rule 1301:7-7-47 of the Administrative Code
19. In accordance with NFPA 1123, Section 8.1.2.1 and NFPA 1126, Section 8.2.6 as listed in rule 1301:7-7-47 of the Administrative Code
20. In accordance with NFPA 1123, Section 8.1.6.1 and NFPA 1126, Section 8.5.5 as listed in rule 1301:7-7-47 of the Administrative Code
21. In accordance with NFPA 1123, Section 4.5.5 as listed in rule 1301:7-7-47 of the Administrative Code and paragraph (H)(10)(b)(3308.10.2) of this rule (Inspector should do a complete walk through with the licensed exhibitor to address each such item to insure the integrity of each item and the fact it cannot fall over or be repositioned)
22. In accordance with paragraph (H)(10)(c)(i)(3308.10.3.1) of this rule

Additional Requirements

- Both the Fire Official and licensed exhibitor should mutually agree in advance on a method used to communicate during the exhibition. Agreement should also be made in advance pertaining to the exact location the Fire Official will be stationed to maintain safety for all involved.
- If a condition arises requiring the entry of fire protection or other emergency response personnel into the fallout area security perimeter, the display shall be halted until the situation is resolved.
- If a significant hazard exists due to weather, lack of crowd control, or other condition, the exhibition shall be halted until resolv ed.
- The security of the display site shall be maintained until released by the exhibitor.
- Check with the safety person and monitors for any signs of problems.
- Allow registered assistants to enter the area and attend to extinguishing fires, smoldering embers, and debris in the firing area and fallout area.
- Before entering the area, wait a minimum period of time, that the exhibitor deems necessary, to include letting the area cool with resulting inspection by fireworks crew.
- Confer with the licensed exhibitor and, if mutually agreed, release fire crew and equipment from the scene. Do not release security or monitors. Maintain barricades for area until spectators have left.
- Be sure all live product and duds are properly repackaged and secured into vehicle. Replace placards on vehicle.
- Where fireworks are displayed at night, appropriate morning re-inspection of the site should be mutually agreed to.

The completed permit application and completed checklist constitute final approval by the AHJ. These forms shall be submitted to the state fire marshal's office by the fire official no later than five days after the date of the exhibition. Please return to:

Division of State Fire Marshal
Code Enforcement Bureau
8895 East Main Street
Reynoldsburg, Ohio 43068
(614) 758-5460 Fax (614) 728-5168
webfmtr@com.state.oh.us

This checklist is not a substitute to reviewing and complying with Chapter 3743 of the Revised Code, Ohio Fire Code 1301:7-7-33, NFPA 1123, 1124, and 1126 as listed in rule 1301:7-7-47 of the administrative Code as it relates to fireworks exhibitions.

TO REPORT AN INCIDENT CALL 800-589-2728 OR 614-752-7106

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(614) 752-7126 Fax (614) 995-4206
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Checklist for Any Flame Effects Or an Indoor Fireworks Exhibition

Permit # _____

Date & Time of Exhibition	**Exhibitor's Name**
County & City of Exhibition	**Exhibitor's License #**
FD Name & FDID #	**Exhibitor's Phone**
Exact Location of Event:	

**** Initialing each step indicates that step has been completed ****	**Fire Official Initials**	**Exhibitor Initials**
1. Was insurance or bond of $1,000,000.00 or more verified?		
2. Was product purchase verified to be from a licensed Ohio Wholesaler, Ohio Manufacturer, or Out-of-State Shipper with a shipping permit? License # _____		
3. Has exhibitor provided the number, names and ages of all assistants who will be present?		
4. Was the site inspection conducted prior to issuing permit? Date of Site Inspection: _____		
5. Has all planning and use of pyrotechnics and flame effects been coordinated with the venue owner, manager, or producer?		
6. Was a written plan submitted to AHJ identifying firing and fallout area for each device, location of the audience, number & types of devices to be fired, and a description of each effect?		
7. Have locations, distances, and details of the site plan been verified for accuracy?		
8. Was certification provided that the set, scenery, rigging materials, and all materials worn by performers in the fallout area are inherently flame retardant or have been treated to be so?		
9. Was a walk through and demonstration provided and approved?		
10. Was a MSDS sheet provided for all pyrotechnic materials and fuels to be used in the effects?		
11. Do all electrical firing systems have written instructions and/or a description of performance specification of flame effect created?		
12. Does the flame effect system have a control system for emergency stop and complete shutdown?		
13. Are all devices mounted so no fallout or flame damages property, causes personal injury, or death?		
14. Is the fire protection system going to be interrupted during the performance? Y _____ N _____ If yes, the owner must be notified and an approved fire watch present during that time.		
15. Is all required portable fire fighting equipment present and ready for use?		
16. Are pyrotechnic product, binary systems, and mixing containers identified or marked by manufacturer?		
17. Has type of communication been determined that will be used during the exhibition?		
18. Are all pyrotechnic materials/devices and fuel stored in a secured, inaccessible, or supervised area?		
19. Are all firing devices constructed and secured to remain in a fixed position during firing?		
20. Is smoking or open flame prohibited where pyrotechnic materials or fuel is present?		
21. Are all mortars and flash pots constructed so that they do not fragment or become distorted in shape when pyrotechnic material is fired?		
22. Have measures been established to provide crowd management, security, fire protection, and emergency services?		

By signing this form below, I acknowledge that I understand and have followed all of the requirements and procedures described in this checklist. To the best of my knowledge, the information included in this document is complete and accurate. Procedures described herein have been followed by myself and all of the other properly authorized participants in this exhibition of fireworks.

Fire Chief/Fire Prevention Officer: _____ Date: _____

Ohio Licensed Exhibitor _____ Date _____

Copy completed form to Exhibitor, Fire Chief/Fire Prevention Officer, Law Enforcement Officer, and State Fire Marshal

Code References

1. In accordance with division (D) of section 3743.54 of the Revised Code
2. In accordance with division (A) of section 3743.54 of the Revised Code
3. In accordance with paragraph (K)(4)(e) 3311.4 of this rule
4. In accordance with division (C) of section 3743.54 of the Revised Code
5. In accordance with NFPA 1126 section 6.1.4 as listed in rule 1301:7-7-47 of the Administrative Code
6. In accordance with NFPA 160, section 5.1.3 and NFPA 1126, section 6.3.2 as listed in rule 1301:7-7-47 of the Administrative Code
7. In accordance with NFPA 160, section 5.2.1 and NFPA 1126, section 6.1 as listed in rule 1301:7-7-47 of the Administrative Code
8. In accordance with NFPA 160, section 5.3.1 and NFPA 1126, section 6.3.2 as listed in rule 1301:7-7-47 of the Administrative Code
9. In accordance with NFPA 160, section 5.4 and NFPA 1126, section 6.4.1.1 as listed in rule 1301:7-7-47 of the Administrative Code
10. In accordance with NFPA 160, section 5.3.1 and NFPA 1126, section 6.3.2 as listed in rule 1301:7-7-47 of the Administrative Code
11. In accordance with NFPA 160, section 6.2 as listed in rule 1301:7-7-47 of the Administrative Code
12. In accordance with NFPA 160, section 9.3.1 as listed in rule 1301:7-7-47 of the Administrative Code
13. In accordance with NFPA 1126, section 8.2.1.2 as listed in rule 1301:7-7-47 of the Administrative Code
14. In accordance with NFPA 160, section 5.5 and NFPA 1126, section 6.4.3 as listed in rule 1301:7-7-47 of the Administrative Code
15. In accordance with NFPA 160, section 11 and NFPA 1126 8.1 as listed in rule 1301:7-7-47 of the Administrative Code
16. In accordance with NFPA 1126 7.2 as listed in rule 1301:7-7-47 of the Administrative Code
17. In accordance with NFPA 1126 8.3.5 as listed in rule 1301:7-7-47 of the Administrative Code
18. In accordance with NFPA 160, section 4 and NFPA 1126 5.2.3 as listed in rule 1301:7-7-47 of the Administrative Code
19. In accordance with NFPA 1126 8.2 as listed in rule 1301:7-7-47 of the Administrative Code
20. In accordance with NFPA 160, section 7.4 and NFPA 1126, Section 8.5.5 as listed in rule 1301:7-7-47 of the Administrative Code
21. In accordance with NFPA 1126 8.2.5 as listed in rule 1301:7-7-47 of the Administrative Code
22. In accordance with NFPA 1126 6.1.3 as listed in rule 1301:7-7-47 of the Administrative Code

Additional Requirements

- Both the fire official and licensed exhibitor should mutually agree in advance on a method used to communicate during the exhibition. Agreement should also be made in advance pertaining to the exact location the fire official will be stationed to maintain safety for all involved.
- If a condition arises requiring the entry of fire protection or other emergency response personnel into the fallout area security perimeter, the display shall be halted until the situation is resolved.
- If a significant hazard exists due to weather, lack of crowd control, or other condition, the exhibition shall be halted until resolved.
- The security of the display site shall be maintained until released by the exhibitor.
- Check with the safety person and monitors for any signs of problems.
- Allow registered assistants to enter the area and attend to extinguishing fires, smoldering embers, and debris in the firing area and fallout area.
- Before entering the area, wait a minimum period of time, that the exhibitor deems necessary, to include letting the area cool with resulting inspection by fireworks crew.
- Confer with the licensed exhibitor and, if mutually agreed, release fire crew and equipment from the scene. Do not release security or monitors. Maintain barricades for area until spectators have left.
- Be sure all live product and duds are properly repackaged and secured into vehicle. Replace placards on vehicle.
- Appropriate re-inspection of the site should be mutually agreed to.

The completed permit application and completed checklist constitute final approval by the AHJ. These forms shall be submitted to the state fire marshal's office by the fire official no later than five days after the date of the exhibition. Please return to:

Division of State Fire Marshal
Code Enforcement Bureau
8895 East Main Street
Reynoldsburg, Ohio 43068
(614) 758-5460 Fax (614) 728-5168
webfmtr@com.state.oh.us

This checklist is not a substitute to reviewing and complying with Chapter 3743 of the Revised Code, Ohio Fire Code 1301:7-7-33, NFPA 1126 and 160 as listed in rule 1301:7-7-47 of the administrative Code as it relates to Fireworks Exhibitions.

TO REPORT AN INCIDENT CALL 800-589-2728 OR 614-752-7106

An Equal Opportunity Employer and Service Provider

STATE OF OHIO * * * FIREWORKS * * * TRAINING ATTENDANCE ROSTER

TRAINED BY COMPANY_____ I.D. NUMBER_____ PHONE #_____

TRAINED BY EXHIBITOR _____ I.D. NUMBER_____ PHONE #_____

LOCATION OF CLASS _____

Address *City* *State*

DATE OF CLASS _____ TOTAL CLASS HOURS _____

PRINT LAST NAME	PRINT FIRST NAME	MI	Are you an Ohio Exhibitor?	EXHIBITOR NUMBER OR FIRE DEPARTMENT NAME	SIGNATURE OF ATTENDANCE
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		
			☐ Yes ☐ No		

This attendance roster with original signatures must be returned to the State Fire Marshal, 8895 E. Main Street, Reynoldsburg, OH 43068, within 15 days for credit to be issued to student. Any instructors wanting credit must also be included on list. Certificates of completion will be required upon exhibitor's renewal. Also, please make a copy of completed roster(s) for your records.

Department of Commerce
Division of State Fire Marshal
John R. Kasich, Governor
David Goodman, Director

Exhibitor Examination Schedule for 2013

January 2, 2013	March 12, 2013	August 13, 2013
January 8, 2013	April 9, 2013	September 10, 2013
January 11, 2013	May 14, 2013	October 8, 2013
January 16, 2013	June 11, 2013	November 12, 2013
February 12, 2013	July 9, 2013	December 10, 2013

Unless noted otherwise above, all exhibitor exams will be held at the State Fire Marshal's office located at 8895 East Main Street, Reynoldsburg, Ohio 43068. Please refer to the directory located in the lobby for the appropriate testing room. **Fingerprinting not available at off-site exams.**

You will be scheduled for the exam upon receipt of your completed application and appropriate fees. Seating for the exam is limited, so plan to apply early. If your application is received in our office 14 days prior to testing date, you will receive a confirmation letter with the date you are scheduled to take the exam.

The examination is prepared from the Ohio Revised Code 3743, Ohio Fire Code 1301: 7-7-33 and the referenced editions of the National Fire Protection Association (NFPA) Standards listed below:

Type I Exhibitor	-	Fireworks & Pyrotechnics NFPA 1123 & NFPA 1126 - 2006 Edition
Type II Exhibitor	-	Pyrotechnics NFPA 1126 - 2006 Edition
Type III Exhibitor	-	Flame Effects NFPA 160 – 2006 Edition

To obtain copies of the NFPA Standards please call (800) 344-3555. This is a closed book examination beginning promptly at 9:00 A.M. Applicants have two (2) hours to take exam(s). Type 1 applicants must pass both the fireworks and pyrotechnics exhibitor exam. You must present a photo ID or driver's license reflecting your date of birth to be seated for this examination.

- Application must be typewritten or neatly printed.
- Indicate type of exhibitor's license(s) applying for.
- Payment of $50.00 per type of exhibitor license is required. Submit a check or money order made payable to: Treasurer, State of Ohio. **Application Fees are Non-Refundable.**
- There is an additional $24 fee if fingerprinted by the State Fire Marshal's office.
- Submit a letter of proficiency in the handling/discharging of product for each exhibitor type applying for (i.e. Type I must have firework and pyrotechnic experience). Letter(s) shall be endorsed with the signature of a licensed exhibitor, manufacturer or wholesaler of fireworks in Ohio, or a copy of a valid exhibitor licensed issued by another state.
- Applicant cannot be convicted of, or have pleaded guilty to, a felony under the laws of this state, another state or the United States of America. Your Social Security number is required on the application.
- All applicants must complete and return Declaration Regarding Material Assistance form.
- Applicant must be 21 years of age to sit for examination.

Bureau of Testing & Registration
8895 East Main Street
PO Box 529
Reynoldsburg, OH 43068 U.S.A.

614 | 752 7126
Fax 614 | 995-4206
TTY/TDD 800 | 750 0750
www.com.ohio.gov

An Equal Opportunity Employer and Service Provider

Department of Commerce
Division of State Fire Marshal
Bureau of Testing and Registration
8895 East Main Street - P.O. Box 529
Reynoldsburg, Ohio 43068
(614) 752-7126 Fax (614) 995-4206 TTY/TDD 800-750-0750
www.com.ohio.gov

Application for Exhibitors License

ID Number

Instructions:

1. Applications must be typed or neatly printed. Indicate type of exhibitor's license(s) applying for.
2. Payment of $50.00 per type of exhibitor license is required. Submit a check or money order made payable to: Treasurer, State of Ohio. **Application fees are non-refundable.**
3. There is an additional $24 fee if fingerprinted by the State Fire Marshal's office.
3. Submit a letter of proficiency in the handling/discharging of product for exam type applying for (i.e. Type I must have firework and pyrotechnic experience). The letter(s) shall be endorsed with the signature of an Ohio licensed exhibitor, manufacturer or wholesaler of fireworks in Ohio, or a copy of a valid exhibitor license issued by another state.
4. Applicant cannot be convicted of, or have pleaded guilty to, a felony under the laws of this state, another state or the United States of America. The applicant will need to submit an additional $24 for fingerprinting services provided by this office. Your social security number is required on the application.
5. Applicant must be 21 years of age to sit for examination.

Name SSN

Address Date of Birth

City State Zip Code

County Phone Number Email

Please mark all licenses that you currently hold: ☐ ATF ☐ Conceal and carry for a firearm ☐ TSA

Are you currently registered as an exhibitor's assistant in the State of Ohio? ☐ Yes ☐ No

If yes, what is the certificate number? 56-

Exam Date Requested

Please mark the classification of license you are applying for:

Type I - Fireworks/Pyrotechnics Exhibitor (NFPA 1123 & NFPA 1126)	☐
Type II - Pyrotechnics Exhibitor (NFPA 1126)	☐
Type III - Flame Effects (NFPA 160)	☐

I, _____, Under my oath hereby certify that the matters set forth by me in this application is true and correct:

_____ Subscribed and sworn to before me this _____ Day of _____, 20_____
Signature of Applicant

_____
Signed By Notary Commission Exp.

An Equal Opportunity Employer and Service Provider

Ohio Department of Commerce
Division of State Fire Marshal
Bureau of Testing & Registration
8895 E Main Street P.O. Box 529
Reynoldsburg, OH 43068
(614) 752-7126 FAX (614) 995-4206
TTY/TDD 800-750-0750
www.com.ohio.gov

APPLICATION FOR OUT-OF-STATE SHIPPING PERMIT

License Number	
Sequence Number	

FILING INSTRUCTIONS

A. Application must be typewritten or neatly printed.
B. All documents must be originals.
C. Submit a non-refundable check/money order for $2,750 payable to: Treasurer, State of Ohio
D. Application must be accompanied by a copy of the applicant's license or permit issued in his/her state of residence authorizing him/her to engage in the manufacture, wholesale, or transportation of fireworks in that state (if applicable).
E. The lines provided below specifying the types of fireworks to be shipped into the state must be checked if applicable.
F. Attach a certificate of insurance for shipping fireworks pursuant to the Department of Transportation regulations.
G. Submit proof of out-of-state residency (e.g., copy of driver's license, state ID).
H. **Applicant or any individual holding, owning, or controlling a five percent or greater beneficial or equity interest in the license, permit, or applying company cannot be convicted of, or have plead guilty to a felony under the laws of this state, another state or the United States of America. National Background check results for applying company officers must be submitted with the application.**

COMPANY INFORMATION

Name of Company: _____ Phone: _____

DBA: _____

Address: _____ City: _____State: _____ Zip: _____

Type of Fireworks to be Shipped (check all applicable boxes) 1.3 G ☐ 1.4 G ☐ 1.4 S ☐ 1.1 G ☐

24 HOUR EMERGENCY CONTACT PHONE: _____ CONTACT NAME:_____

NAME OF COMPANY REPRESENTATIVE MAKING APPLICATION (please use additional sheet for shareholders):

_____ Email:_____

CERTIFICATION

STATE OF _____ ss:

COUNTY OF: _____

I, _____, under my oath (or affirmation) hereby certify that the information and documents set forth by me in this application are true and correct. I understand and will abide by the rules adopted by the fire marshal, pursuant to section 3743.58 of the Revised Code, for transporting fireworks, and that the applicant will ship all fireworks in accordance with the DOTn regulations.

_____
SIGNATURE

Subscribed and sworn to before me this _____ day of _____, 20____.

_____ My Commission Expires: _____

NOTARY SEAL

Signature of Notary

Department of Commerce
Division of State Fire Marshal
John Kasich, Governor
David Goodman, Director

SHAREHOLDER INFORMATION

For the purposes of this form, "Controls" includes the ownership, a holding of, or other control of shares as either a beneficial or equity interest by the shareholder

Each licensee must submit the following information for any entities that have any ownership interests, directly or indirectly, in the licensee listed in this section. Pursuant to R.C. 3743.70, this continuous chain of information must be provided until all individuals with any ownership interests (including those held, owned or controlled as a beneficial or equity interest) in the license have been fully described. If any shareholder is a corporation or other business entity, then the licensee must submit an additional Supplemental Shareholder Information Form for every such corporation or entity. Attach additional sheets as necessary.

COMPANY NAME:_____

SHAREHOLDER

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Social Security No. _____

Percent of total shares this owner controls _____%

SHAREHOLDER

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Social Security No. _____

Percent of total shares this owner controls _____%

SHAREHOLDER

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____ Social Security No. _____

Percent of total shares this owner controls _____%

Department of Commerce
Division of State Fire Marshal
Bureau of Testing and Registration
8895 E. Main Street ♦ P.O. Box 529
Reynoldsburg, Ohio 43068
1-877-264-0023 Fax (614) 995-4206
TTY/TDD 800-750-0750
www.com.ohio.gov

Licensed Fireworks Exhibitor - New Assistant Registration

Exhibitor ID _____

Check Number _____

Filing Instructions

1. Make check/money order payable to: *Treasurer, State of Ohio*
2. All fee's are non-transferable and non-refundable.
3. By signing this form the licensed exhibitor verifies that all registered employees have completed a minimum of three hours in-service education in the safe operation of a pulic display as required by OAC 1301:7-7-33(S)(10)(b)(ii)3319.10.2.2
4. Registration fee is $25.00 per employee. As long as an individual is registered as an assistant with the State Fire Marshal's office, any licensed exhibitor can use that registered employee.
5. Applicants cannot be convicted of, or have pleaded quilty to, a felony under the laws of this state, another state, or in the United States of America. National background check results must be submitted with this application.
6. The licensed exhibitor shall file an application to register a new employee at least **14 days prior to assisting the licensed exhibitor and no later than seven days after the hire date.**

Licensed Fireworks Exhibitor Name _____ Signature _____

Employee Name	Street Address	City	State	Zip	SSN	Date of Birth	Date of Hire	Previously Registered?

EQUAL OPPORTUNITY EMPLOYER & SERVICE PROVIDER

FIREWORKS PURCHASER FORM

As prescribed by the Ohio Division of State Fire Marshal

Section 1 - Seller Information

Company

Address

City & Zip

License #

Section 2 - Purchaser Requirements

KNOWINGLY MAKING A FALSE STATEMENT ON THIS FOR M IS FALS IFICATION UNDER S ECTION 2921.13 OF THE OHIO REVISED C ODE (ORC) AND IS PUNISHABLE AS A MISDEMEANOR OF THE FIRST DEGREE.

Sections 3743.44 & 3743.45 of the Ohio Revised Code state that each purchaser of fireworks shall transport the fireworks directly out of the state within 48 hours after the time of their purchase. In accordance with section 1301:7-7-33(Z)(2) of the Ohio Administrative Code (Ohio Fire Code Section 3326.2), the purchaser's copy of the completed purchaser form must accompany the purchased fireworks and must be attached to an invoice that itemizes the quantity of fireworks purchased and lists the amount of the sales transaction. The purchaser's copy of this form must be provided by the purchaser to any law enforcement officer or fire authority upon request.

Section 3 - Purchaser Information

Sale Type: Retail ☐ Wholesale ☐

Name _____

Address _____

City _____

State _____ Zip _____

Date of Birth _____

ORC 3743.44 requires the number of the purchaser's license or permit authorizing the purchaser to manufacture, sell at wholesale, or sell at retail fireworks or to conduct fireworks exhibitions, or the number of the purchaser's motor vehicle operator's license.

Driver's license No. _____

OR

Fireworks License # _____

I understand that as th e purchaser of firework s, I a m responsible for any illegal use of the purchased fireworks, including an y damages c aused by improper use.

/ /

Purchaser's Signature **Date**

John R. Kasich, Governor
David Goodman, Director

8895 East Main Street
Reynoldsburg, Ohio 43068
1-888-726-7731
TTY/TDD: 1-800-750-0750
www.com.ohio.gov

Department of Commerce

Division of State Fire Marshal

Fireworks Classes for 2013

2013 Classes:

The courses listed below are sponsored by the State Fire Marshal's office and will meet the requirements for continuing education (CE) that must be completed every three years by a licensed fireworks and/or pyrotechnics exhibitor in Ohio. A licensed exhibitor who attends this required program may, within one year after attending, and on an annual basis during the following two years, conduct in-service training using the information obtained in this class.

This course is designed to give the officer in charge of issuing a permit, information regarding National Fire Protection Association (NFPA), Ohio Revised Code (ORC) and Ohio Fire Code (OFC) requirements, responsibility, liability and safety.

Course Number	Date and Location
3028-2013-002	March 30, 2013 SFM- Ohio Academy Fir 8895 East Main Street Reynoldsburg
3028-2013-106	April 19, 2103 University of Akron Polsky Building Akron
3028-2013-101	April 22, 2013 Wright State University Nutter Center Dayton
3028-2013-104	May 3, 2013 Schottenstein Center Columbus
3028-2013-105	June 3, 2013 Owens Community College Center for Emergency Preparedness Toledo
3028-2013-103	June 8, 2013 Kings Island 6300 Kings Island Drive Mason
3028-2013-102	June 22, 2013 Chillicothe VA Medical Center Chillicothe

All SFM Fireworks classes are offered free of charge.

National FBI background checks are required for all fireworks licensure, fingerprinting is offered at a charge of $24 at the state-sponsored continuing education classes.

These courses are not sponsored by the State Fire Marshal's Office. However, the courses listed will meet the requirements for continuing education that must be completed every three years by a licensed fireworks/pyrotechnics exhibitor in Ohio as outlined in the Ohio Fire Code. Please contact the Fireworks Company for registration instructions:

April 20, 2013 Rozzi Fireworks

May 18, 2013 Hamburg Fireworks - $25 registration fee for anyone that is not a current employee.

How to Register for state-sponsored fireworks classes:

Online Registration:

https://www.comapps.ohio.gov/sfm/fire_apps/fmac/course_reg/

A student ID and password are required to complete the online registration process.

To Register by Fax or Mail:

Obtain a registration form by calling 614-752-7196 or download one from:

https/www.com.ohio.gov/fire/docs/fire_course_registration.pdf

After completing the form, please return it to the Ohio Fire Academy, 8895 East Main Street, Reynoldsburg, OH, 43068.

American Pyrotechnics Association Documents

Classification of Fireworks

Banned Fireworks

Emergency Response Information 1.1 G & 1.3 G

Emergency Response Information Consumer Fireworks

Emergency Response and Action for Fire Service

Storage of Consumer Fireworks

Ignition Temperatures of Various Common Materials

Heats of Combustion of Common Materials

Fireworks Injuries by Type of Device

Weather Related Guidelines

APA Proximate Pyrotechnics Checklists

2001 APA Standard 87-1

APA Close Proximity Descriptions

The Classification of Fireworks

Fireworks are classified as “explosive” for transportation purposes, under regulations of the U.S. Department of Transportation (DOT), because of the chemical compositions contained in fireworks devices. Other Federal agencies use the DOT system and definitions in their regulations affecting the fireworks industry.

In December 1991, the U.S. Department of Transportation revised its Hazardous Materials Regulations based on the U.N. Recommendations on the Transport of Dangerous Goods. Under the current DOT classification system, "explosives" are classed into six divisions. Fireworks fall into two of the six divisions:

Current Classification	***Class Name, Prior to January 1, 1991.***
Division 1.1	Class A Explosives
Division 1.2	Class A or B Explosives
Division 1.3	Class B Explosives
Division 1.4	Class C Explosives
Division 1.5	Blasting Agents
Division 1.6	No Applicable Hazard Class

Where the classification system in effect prior to January 1, 1991, is referenced in state or local laws, ordinances or regulations not pertaining to the transportation of hazardous materials, the following table may be used to compare old and new hazard class names.

Fireworks fall into two of the six divisions:

Division	***Hazard Description.***
Explosives 1.3 (formerly Class B Special Fireworks)	Mass fire or deflagration hazard. Examples include many non-detonating military devices such as large flares, and many propellants. "Special Fireworks" — the larger devices used in public displays — are included in this category.
Explosives 1.4 (formerly Class C Common Fireworks)	Devices containing limited quantities of explosive or combustible chemical composition. The transportation hazard of these devices is rated "minimum" by DOT. "Common fireworks" devices intended for use by the general public are included in this category.

In comparison, dynamite, TNT, and most military explosives are classed in Division 1.1 and 1.2. These materials and devices possess a detonating or other maximum hazard.

Fireworks may also fall into a category known as "Not Regulated". This category includes

certain small items containing limited amounts of pyrotechnic composition that are packaged in such a way that only a "normal" fire results if a shipping carton containing one of these devices is placed in a bonfire. All items must be tested before they are placed in this category by DOT. "Not regulated" items are exempt from the DOT regulation for Hazardous Materials.

All "explosives" must be formally approved for transportation and assigned an "EX Number" indicating this approval before they can be offered for transportation in the U.S.

Reference: Title 49, Code of Federal Regulations Parts 173.50, 173.51, 173.52, 173.53, 173.56

Information courtesy of The American Pyrotechnics Association

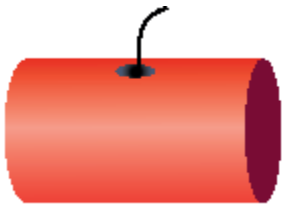
AMERICAN PYROTECHNICS ASSOCIATION

Be on the Lookout!

Cherry Bombs, Silver Salutes, and M-80's have been banned by Federal Law since 1966 because of the large amounts of explosive composition they contain. If you find any of these items, DO NOT touch them. Immediately call your local police or fire service. If you are aware of someone selling these illegal and dangerous items, contact the Bureau of Alcohol, Tobacco and Firearms immediately at 1-888-ATF-BOMB.

Cherry Bombs: Cherry bombs are red in color. They are approximately 1" in diameter. NOTE: Similar-looking, legal devices that produce a stream of smoke will be clearly marked as a "Toy Smoke Device." Smoke devices will NOT be red in color.

Diameter 1î



Length - approx. 1 ½î

M-80ís: M-80's are red in color. They are approximately 1 ½" in length.

Silver Salutes: Silver salutes are silver in color. They are up to 2" in length. The fuse of a silver salute can enter either the side or the end of the tube.

Length - up to 2î

PO Box 30438, Bethesda MD 20824 • (301) 907-8181 • www.americanpyro.com

EMERGENCY RESPONSE INFORMATION
FIREWORKS, 1.1G, UN0333
OR
FIREWORKS, 1.3G, UN0335

(Formerly referred to as Class B Explosives, Consumer Fireworks)

No chemical composition is released or exposed during normal handling, storage and transportation. In the event of a vehicle fire that reaches the cargo area, the fireworks are likely to ignite. The individual fireworks will explode rapidly, spreading burning particles over an area of several hundred feet. A mass explosion is possible, particularly with large quantities of fireworks, and precautions should be taken in the event that one does occur. Smoke and potentially irritating gases will be produced in such a fire. If the fireworks are spilled as the result of an accident but do not ignite, they can be picked up and repackaged with caution. The area should be kept clear of non-essential people while this is being done.

EMERGENCY ACTION

In case of fire, stop traffic and clear the area 2500 feet (1/2 mile) in all directions. Keep non-essential people away.

Do not fight the fire in cargo area. Try to prevent other fire from reaching the cargo area. Self-contained breathing apparatus (SCBA) and structural firefighters' protective clothing provide some limited protection, but firefighters should retreat if fire approaches cargo area.

For additional information, call the shipper using the emergency telephone number listed on the shipping papers.

FIRE

Truck fire (other than cargo area): Flood with water. Tire fires may re-start. If possible, unhook and separate tractor from trailer.

Cargo fire **Do not** move cargo or vehicle if cargo has been exposed to heat. **Do not** fight fire if, and when it reaches cargo. Withdraw from area and let burn. Use firefighting team to prevent spread of fire to adjacent structures and materials.

Promptly isolate the scene by removing all persons from the vicinity of the incident. First, move people out of line-of-sight of the scene and away from windows. Obtain more information from appropriate authorities listed on the shipping papers.

SPILL OF CARGO

Shut off ignition sources. There should be no flares, smoking or tools capable of producing sparks or flames in the vicinity of the spilled material. Cautiously pick up the spilled devices and place them in cardboard cartons.

FIRST AID

Call emergency medical care. Use first aid treatment according to the nature of the injury.

EMERGENCY RESPONSE INFORMATION

FIREWORKS, 1.4G, UN0336

(Formerly referred to as Class C Explosives, Common Fireworks)

No chemical composition is released or exposed during normal handling, storage and transportation. In the event of a vehicle fire or intense that reaches the cargo area, the fireworks are likely to ignite. They will burn, spreading burning particles over a limited area. A mass explosion is not expected. Smoke and potentially irritating gases will be produced in such a fire. If the fireworks are spilled as the result of an accident but do not ignite, they can be picked up and repackaged with caution. The area should be kept clear of non-essential people while this is being done.

EMERGENCY ACTION

In case of fire, stop traffic, isolate the immediate area, and deny entry. Keep non-essential people away.

Fire in cargo area can be fought with water spray if necessary, although disposal and site clean up will be simplified if material is allowed to burn. Try to prevent other types of fire from reaching the cargo area.

Self-contained breathing apparatus (SCBA) and structural firefighter's protective clothing will provide some limited protection. Firefighters should retreat if fire approaches cargo area, and use unmanned hose holder to direct water spray on fire.

For additional information, call the shipper using the emergency telephone number listed on the shipping papers.

FIRE

Truck fire (other than cargo area): Flood with water. Tire fires may re-start. If possible, unhook and separate tractor from trailer. Remove vehicle that is not involved in fire from fire area if you can do so without risk. If cargo area is exposed to heat and flames, direct water spray on outside of container to cool it down. Continue spray until well after fire is out.

Cargo fire **Do not** move cargo or vehicle if cargo has been exposed to heat.

Withdraw from area if and when fire reaches cargo and let fire burn, if situation allows. If fire must be fought, flood with water spray. Use firefighting team to prevent spread of fire to adjacent structures and materials.

Promptly isolate the scene by removing all persons from the vicinity of the incident. First, move people out of line-of-sight of the scene and away from windows. Obtain more information from appropriate authorities listed on the shipping papers.

SPILL OF CARGO

Shut off ignition sources. There should be no flares, smoking, tools capable of producing sparks, or flames in the vicinity of the spilled material. Cautiously pick up the spilled devices and place them in cardboard cartons.

FIRST AID

Call emergency medical care. Use first aid treatment according to the nature of the injury.

Emergency Response and Action for the Fire Service

A fire or explosion can have serious consequences at a fireworks manufacturing plant or warehouse, or if a vehicle transporting fireworks is involved in an accident. Therefore, knowledge of the appropriate emergency action to be taken by the fire service or emergency response personnel in the event of an incident is critical.

In the event of fire or explosion at a fireworks manufacturing plant, all employees are instructed to immediately evacuate the site.

Fire service and emergency responders should never attempt to fight a fire that has reached buildings used for manufacturing.

Consumer fireworks (1.4G) contain limited amounts of powder per item. A fire involving sealed shipping cartons of consumer fireworks will burn for an extended time, as the fire spreads through the unburned cartons. Individual items will ignite and burn, and the fire may get quite intense, but large-scale testing by the government and the fireworks industry has shown that there should not be a mass explosion.

In the event of a fire involving consumer fireworks, the fire service or emergency responders should direct their efforts primarily to preventing the spread of the fire, although a fire involving only consumer fireworks can normally be extinguished by water deluge, if necessary. Keep all non-emergency personnel away from the fire area.

As with any fire, avoid breathing the smoke from a fireworks fire. The smoke, however, should not pose an unusual health hazard.

When display fireworks or aerial shells (1.3G) are involved in a fire situation, it is very serious and could result in a mass explosion. Fire service and emergency responders must evacuate the plant and/or warehouse and surrounding area immediately.

Never attempt to fight a fire involving display fireworks.

For additional information, refer to Emergency Response Sheets for Consumer and Display Fireworks.

Information courtesy of The American Pyrotechnics Association

Storage of Consumer Fireworks

Finished "Consumer" fireworks, because of the limited amount of pyrotechnic composition permitted in each individual unit, will not mass explode in a fire situation. They will merely burn at a controlled rate, and the fire can be fought by conventional methods.

All consumer fireworks (Explosives 1.4G) offered for sale in the United States have been tested for stability by the Bureau of Explosives and approved for transportation by the U.S. Department of Transportation. Consumer fireworks are stable devices, they will not spontaneously ignite during storage if kept reasonably cool and dry.

In recognition of the non-explosive nature of consumer fireworks, the Bureau of Alcohol, Tobacco and Firearms--the Federal agency responsible for licensing and storage of explosives--has specifically exempted consumer fireworks from the storage provisions of their regulations.

Tests conducted by the U.S. Department of Transportation in 1983 showed that a fire involving stored consumer fireworks will burn, but not produce a mass explosion. Two shipping containers filled with common fireworks were burned; the test report stated:

> *" The fireworks in both containers were consumed inside of, or in close proximity to, the container test sites. There was little danger to personnel and property since fireworks were not expelled great distances from the container."*

Such a fire could be fought using standard protective equipment, and the spread of the fire could be minimized by the application of water. The tests further demonstrated that great separation distances are not required when consumer fireworks--packaged, finished form--are stored in a warehouse. Similarly, consumer fireworks stored in a typical retail sales location do not pose a fire hazard different from that of other combustible materials.

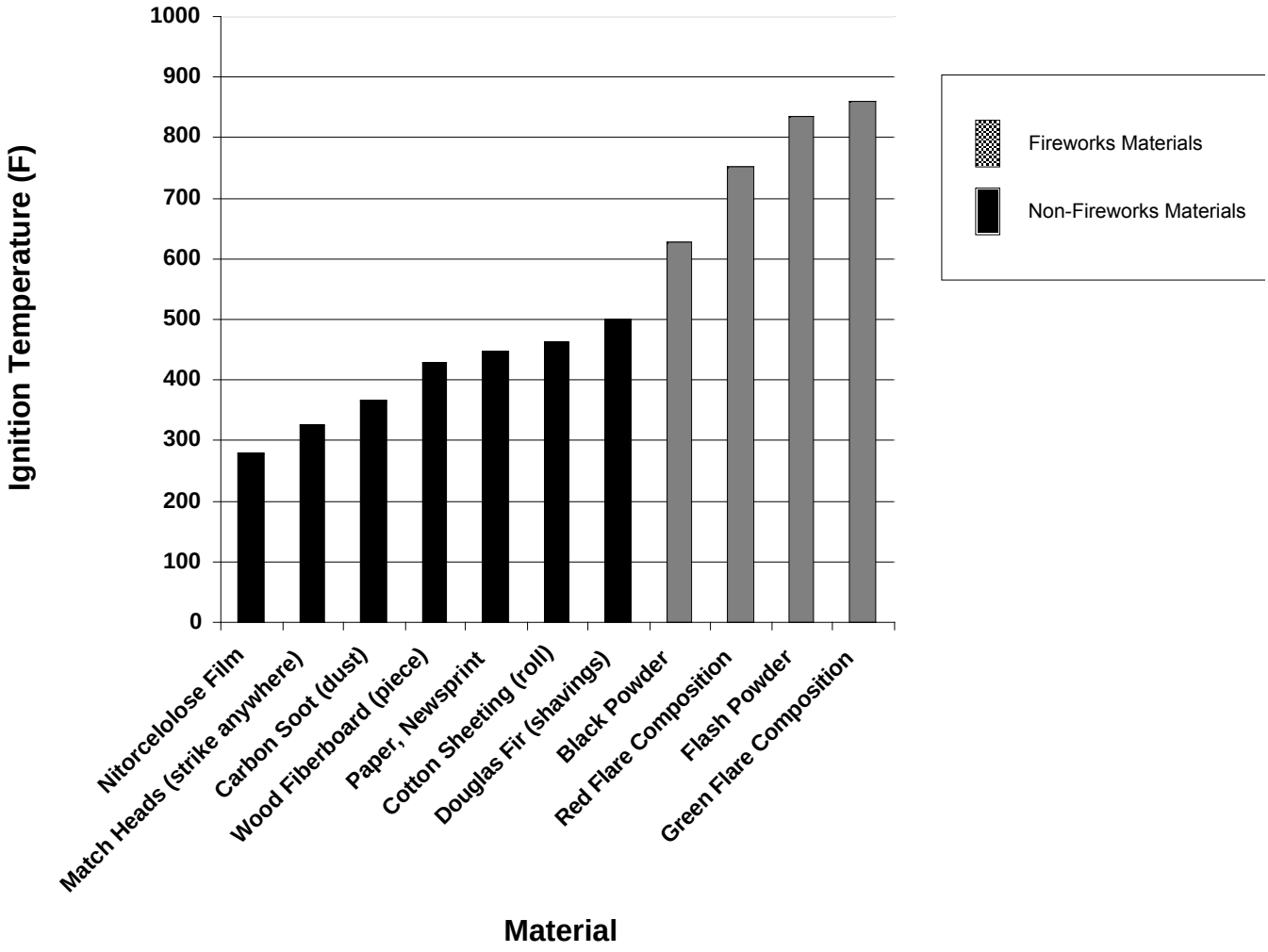
Reference for, additional information on the burn tests: National Fire Protection Association *Fire Journal*, Volume 80, Number 5 (September 1986)

In December 1991, the U.S. Department of Transportation revised its Hazardous Materials Regulations based on the U.N. Recommendations on the Transport of Dangerous Goods. Under the current DOT Classification, common fireworks, formerly described as "Class C" explosives, are now described as Fireworks, UN 0336 and classified as Explosives 1.4G.

Information courtesy of the American Pyrotechnics Association

Ignition Temperatures of Various Common Materials

The following data demonstrates that the chemical mixtures found in fireworks are less prone to ignite if heated than are many common materials found in retail stores, warehouses, and homes.



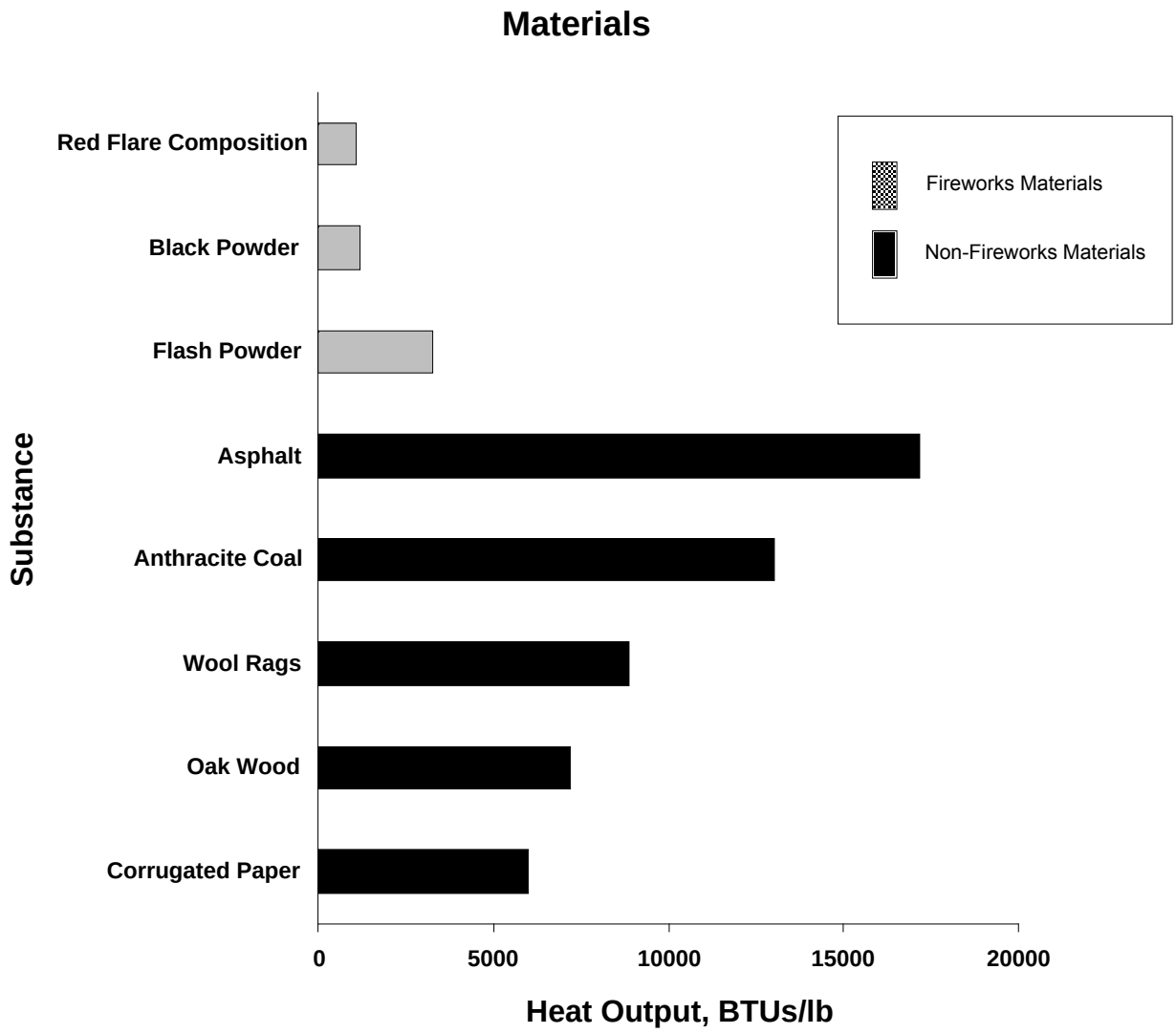
Sources:

R.L. Tuve, principles Of Fire Protection Chemistry, National Fire Protection Association, Boston, 1976.
J.A. Conkling, Chemistry of Pyrotechnics, Marcel Dekker, Inc., New York, 1985.

Information courtesy of the American Pyrotechnics Association

Heats of Combustion of Common Materials

Fireworks compositions produce heat when they burn, but the heat that is generated is considerably less, per pound, than that produced by many other common materials.

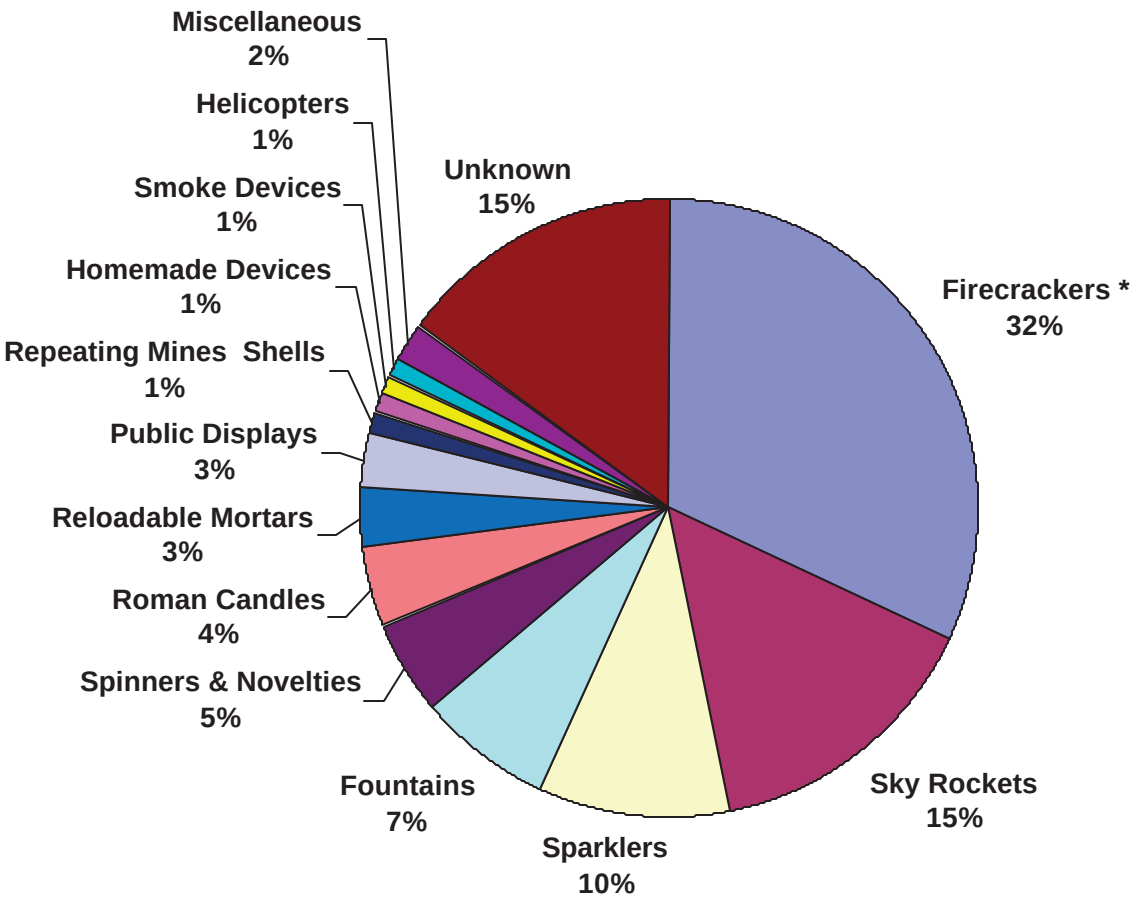


Sources:

R.L. Tuve, principles Of Fire Protection Chemistry, National Fire Protection Association, Boston, 1976.
J.A. Conkling, Chemistry of Pyrotechnics, Marcel Dekker, Inc., New York, 1985.

Information courtesy of the American Pyrotechnics Association

Fireworks Injuries by Type of Device



* Illegal Firecrackers represent 42% of all Firecracker injuries.
Source: American Pyrotechnics Association

Proximate Pyrotechnics Checklists

Disclaimer

The following Checklists contain safety information associated with the presentation of an indoor or "proximate" pyrotechnics event and are intended to provide an overview regarding the proper procedures to be followed. These Checklists are offered by the American Pyrotechnics Association (APA) to assist in safely producing events incorporating indoor pyrotechnics.

The Checklists are not intended to be all encompassing, exhaustive treatments of every aspect of a proximate pyrotechnics production. The Checklists also do not apply to certain types of productions, for example, motion picture and television productions, and other events where the audience is not proximate to the pyrotechnics. The checklists may need to be augmented by the team members to include special circumstances and shifting responsibilities for certain aspects of an event.

The APA, its officers and directors, and its members make no warranties, express or implied regarding the information provided in the attached Checklists. Indeed, APA, its officers and directors and its members expressly disclaim any liability whatsoever for the use of these Checklists. In no event shall they be liable for any damage, injuries, costs or expenses relating to the use the Checklists. Users of proximate pyrotechnics are encouraged to seek legal counsel and other appropriate professional assistance prior to utilizing proximate pyrotechnics in any particular jurisdiction.

April, 2004

PROXIMATE PYROTECHNICS CHECKLISTS

I. Pre-Production Checklist (Pyrotechnician)

1. Prepare and file permit application for pyrotechnics (NFPA 1126: 4.2, 4.3)
2. Determine what regulatory standard is used for the jurisdiction
3. Prepare pyrotechnic material description (NFPA 1126: 4.3.2 (j))
4. Review production schedule
5. Installation plot plan and specifications (NFPA 1126: 4.3.2 (k))
6. Determine insurance levels, have insurance certificate prepared with appropriate additional insureds and filed (NFPA 1126: 4.3.2 (i))
7. Determine any pyrotechnic licenses required and other qualifications of Personnel (NFPA 1126: 4.3.2 (h))
8. Plan pyrotechnic transportation, handling and storage (NFPA 1126: 3.1, 3.2)
9. Determine and plan for security requirements (NFPA 1126: 6.1.3, 6.1.4, 6.5.6)
10. Determine venue management contact information (NFPA 1126: 4.3.2, 6.1.3)

II. Site Inspection Checklist (Pyrotechnician & Venue Management)

1. Confirm venue management consent to pyrotechnics
2. Confirm venue management or production permit for event
3. Verify plot plan measurements and accuracy (NFPA 1126: 4.3.2 (j) and (k))
4. Verify AHJ approval of venue compliance with life safety standards
5. Determine fire protection systems, controls and equipment
6. Determine HVAC systems and controls
7. Determine show management production plan
8. Determine venue management safety plans, crowd control, security and emergency plans and procedures
9. Determine personal safety requirements for pyrotechnicians (e.g., fall protection plans and equipment)
10. Verify AHJ approval of flame retardant materials in public areas and pyrotechnic installation sites
11. Determine approved & secure storage and work areas for pyrotechnics (NFPA 1126: 3.1.1, 4.3.2 (l) and (m), 6.1.3, 6.1.4)
12. Determine hazmat shipping depot (venue) if required

III. Production Meeting Checklist (Production Management)

1. Confirm installation plan and schedule (NFPA 1126: 4.2, 4.3)
2. Schedule live pyrotechnic demonstration (NFPA 1126: 4.4.1, 4.4.2)
3. Schedule rehearsal and performance
4. Determine need for HVAC/fire protection system control adjustments and personnel responsibilities (NFPA 1126: 4.4.3, 6.1.6, 6.6.6, 6.7.6, 6.7.7)
5. Assign responsibility for hazard communication with participants and staff (NFPA 1126: 6.6.1)
6. Review emergency action plan and assign responsibilities

7. Coordinate pyrotechnic control points, communications and line of sight (NFPA 1126: 6.3.5, 6.3.6, 6.6.5)
8. Review crew lists and assignments
9. Review safety plans and procedures and personal protective equipment (NFPA 1126: 6.5.7)

IV. Walkthrough Inspection Checklist (AHJ)

1. Pyrotechnic walkthrough and demonstration
   A. Confirm venue management consent to pyrotechnics
   B. Verify pyrotechnic plot with actual site dimensions/adjustments
2. Type of devices – verify indoor/proximate use & performance specifications (NFPA 1126: 5.1, 5.2, 5.3, 5.4)
3. Verify quantities, locations, and cueing of devices to be used
4. Verify secure areas and methods for restricting unauthorized persons from entering.
5. Verify that all devices are securely fixed with proper audience separation
   A. Minimum 15ft or 2X fallout radius (NFPA 1126: 6.4.1)
   B. Concussion mortars min 25ft in secured area (NFPA 1126: 6.4.2)
   C. Trajectory of comets/mines not over audience (NFPA 1126: 6.2.11)
   D. Waterfall effect area to be free of flammable materials (NFPA 1126: 6.2.12)
   E. Wire rocket effects to be properly secured and terminated (NFPA 1126: 6.2.9)
   F. Airbursts over audience to be minimum height of 3 times the diameter of effect, and no sparks within 15 ft of floor (NFPA 1126: 6.2.14(1) & (2))
6. Check fire fighting equipment
   A. Minimum of 2 approved water fire extinguishers (NFPA 1126: 6.1.1.1)
   B. Other firefighting equipment as needed/required (NFPA 1126: 6.1.1 & 6.1.1.2)
   C. Existing on-site fire fighting equipment/systems
7. Pyrotechnic firing systems
   A. Verify operational/safety features and functions of systems (NFPA 1126: 6.3.2 & 6.3.3)
   B. Verify operator & spotters have clear view of effects and communication with operator (NFPA 1126: 6.3.5)
8. Determine plan for HVAC /detectors adjustments & notification of demonstration
9. Determine need for demonstration of representative effects
10. Check plans for approved and secure on-site storage and preparation areas (NFPA 1126: 4.3.2 (l), 6.1.3 & 6.1.4)
    A. Separation from heat/flame sparks (NFPA 1126: 3.3)
    B. No smoking within 25ft (signage) (NFPA 1126: 6.5.5)
    C. Materials stored/handled neatly and orderly (NFPA 1126: 6.5.1)
11. Check plan for personal protective equipment for preparation and loading of pyrotechnics (NFPA 1126: 6.5.7)

V. Rehearsal & Show Checklist (Pyrotechnician)

1. Hold safety meeting with all participants
2. Hold rehearsal, if required (all requirements of following section apply)
3. Performance

A. Determine how final alert will be given to all performers, crew and support personnel and who will give the alert
B. Conduct final inspection immediately preceding performance
    a) Confirm pyrotechnic wiring connections and firing system
    b) Confirm device placement, mounting, orientation and readiness
    c) Confirm firefighting equipment in position
    d) Confirm spotters in place with communication
C. Execute or fire show
    a) Confirm and maintain audience separation, performers positioned correctly, support personnel readiness
    b) Confirm and maintain unobstructed view of effects by operator and/or spotter
    c) Observe effect performance for safe operation

VI. Post-Show Checklist (Pyrotechnician)

1. Inspect all pyrotechnic devices to confirm firing (NFPA 1126: 6.7.1)
2. Confirm the integrity of fallout zones and adjacent areas
3. Return unfired devices to approved storage or repackage for transportation (NFPA 1126: 6.7.2)
4. Confirm reactivation of any disarmed fire detection/HVAC systems to normal operating mode (NFPA 1126: 6.7.6)
5. File post-show report, if required

Source: Proximate Pyrotechnics Committee, American Pyrotechnics Association

Reference: National Fire Protection Association, NFPA 1126 Standard for the Use of Pyrotechnics Before a Proximate Audience*, 2001 Edition.*

Question & comments may be directed to:

American Pyrotechnics Association
P.O. Box 30438
Bethesda, MD 20824
(301) 907-8181

Weather Related Guidelines to follow When Conducting Outdoor Fireworks Displays.
Current code from NFPA 1123: **Chapter 8 Operation of the Display**

8.1.4.2 If high winds, precipitation, or other adverse weather conditions prevail such that a significant hazard exists in the opinion of the operator or authority having jurisdiction, the fireworks show shall be postponed until weather conditions improve to a reasonable level.

8.1.7 Measures shall be taken to protect all pyrotechnic materials to be used in the display from adverse weather conditions. Moisture damaged materials shall not be used.

The Guidelines below are not part of the requirements of any NFPA document but are distributed for professional guidance only.

Wind Speed Requirements (May vary due to local and state laws)

0 to 14 mph / These conditions are the most desirable when complying with safety distances and the general information found in 2000 Edition of NFPA 1123, Code for Fireworks Displays, **Chapter 3 Display Site Selection.**

15 to 21 mph / Land displays with limited fallout areas may require added caution and may require a pre-display test shot to determine if adjustments need to be made.
Note: Displays being discharged next to or on the water may tolerate the higher winds generally due to the larger fallout areas and as long as the winds are blowing in the proper direction for the specific display site.

Winds greater than 21 mph / Display may either be safely fired, postponed temporarily or canceled until conditions are deemed acceptable by the local AHJ and the Display Operator in charge.

Rain and Snow / Outdoor fireworks displays may be discharged during rain and snow as long as proper provisions have been made to keep all fireworks and pyrotechnic devices dry up to the time of discharge.

Lightning / When lightning occurs near the local area around the fireworks discharge site, work must temporarily cease until the danger passes, especially if the fireworks and pyrotechnic devices are electrically matched for electronic discharge.
Individuals must retreat to either a vehicle which has **NO** electrically matched fireworks loose or un-shunted, or to an enclosed structure if near the discharge site.

Note: Always be **prepared** to react to approaching and changing weather conditions at a moments notice, **Cover, secure and get to safety until it is safe to resume normal activity!**

Remember, all decisions made which relate to weather conditions and safety issues in general will be made by the Local AHJ and the Display Operator in charge.
Decisions will vary since each display site will be different.

2001 APA STANDARD 87-1

STANDARD FOR CONSTRUCTION AND APPROVAL FOR TRANSPORTATION OF FIREWORKS, NOVELTIES, AND THEATRICAL PYROTECHNICS

The following does not contain Appendix A-D. To purchase the publication in its entirety use order form found on the APA website, or contact the APA office.

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Contents

1. **INTRODUCTION** 1

2. DEFINITIONS 1

3. REQUIREMENTS FOR CONSUMER FIREWORKS, NOVELTIES AND THEATRICAL PYROTECHNICS 4

3.1 Types of Consumer Fireworks 4
3.2 Types of Novelties 7
3.4 Other Devices 8
3.6 Specific Requirements for Consumer Fireworks 9
3.7 Prohibited Chemicals and Components 11
3.8 Requirements for Theatrical Pyrotechnics 12
3.9 Approval 12
3.10 Marking and Labeling 13

4. REQUIREMENTS FOR DISPLAY FIREWORKS DEVICES 13

4.1 Types of Display Fireworks Devices 13
4.2 Construction of Aerial Shells 14
4.3 Approval 15
4.3-1 Standard Fireworks Chemicals Table 16
4.4 Approval for Combination Devices for Display Purposes 17

5. SHIPPING REQUIREMENTS 17

5.3 Packaging Provisions for Fireworks 18
5.7 Special Packaging Provisions for Private Motor Carriers 19
5.8 Attachment of Igniters Prior to Transportation 19

6. REFERENCES 20

Appendices: (*This document does not contain Appendices. To purchase the publication in its entirety, use order form found on the APA website, or contact the APA office.)*

Appendix A: Types of Fireworks and Novelties
Appendix B: Consumer Fireworks Testing Program
Appendix C: Product Labeling Requirements for Consumer Fireworks
Appendix D: Procedure for Obtaining EX Numbers

Note: Changes from the January 1998 edition are indicated in bold type and underlined.

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PREFACE

The information contained in this document was obtained from sources believed to be reliable and is based on technical information and experience currently available from members of the American Pyrotechnics Association and others. However, the Association, nor its members, jointly or severally, make no guarantee of the results and assume no liability or responsibility in connection with the information or suggestions contained within, or that abnormal or unusual circumstances may not warrant or suggest further requirements or additional procedures.

This document is subject to periodic review and users are cautioned to obt ain the latest edition. Comments and suggestions are invited from all users for consideration by the Association in connection with such review. Any such comments or suggestions will be fully reviewed by the Association after giving the party, upon request, a reasonable opportunity to be heard.

This document should not be confused with federal, state or municipal specifications or regulations, insurance requirements or national safety codes. However, when incorporated by reference in the Code of Federal Regulations (CFR), those portions of this document applying to transportation (indicated in this document by an asterisk) have the force of a federal regulation, and shippers of fireworks are subject to penalties pertaining thereto. **Every effort has been made to keep this Standard consistent with the Department of Transportation's Hazardous Materials Regulations in Title 49, CFR.**

The 2001 revisions are intended to address technical questions that have arisen regarding the wording of several sections of the January, 1998 edition of this Standard, including the approval of aerial shells under this Standard. Clarification of the status of certain pyrotechnic novelties has also been incorporated into this edition.

Unless otherwise noted, all CFR references cited in this Standard refer to those sections in effect on **January 1, 2001.**

1. INTRODUCTION

*** 1.1** This standard provides manufacturers, importers and distributors of fireworks and novelties with information to assist them in manufacturing, testing, shipping, and labeling the products of the fireworks industry in accordance with applicable federal laws and current good manufacturing practices (GMPs). Paragraphs of this Standard which apply to the approval by the U.S. Department of Transportation (DOT) for transportation of fireworks are indicated by an asterisk (*) preceding the paragraph number.

*** 1.2** The information in this Standard should enable manufacturers, importers, and distributors of fireworks and novelties to provide their customers with products that can be transported and used safely and without unreasonable risk.

*** 1.3** Fireworks, pyrotechnic articles for theatrical purposes, and novelties are not acceptable for transportation within the jurisdiction of the United States unless they are classed, packaged, labeled, and marked and are in proper condition for shipment in accordance with the DOT regulations in Title 49, CFR. (See Chapter 5 for further discussion.)

*** 1.4** Consumer fireworks (fireworks classed as 1.4G and 1.4S) (formerly Fireworks, Common) and novelties are not acceptable for sale to the public unless they are manufactured, labeled, and sold in conformance with the regulations of the U.S. Consumer Product Safety Commission (CPSC) published in Title 16, CFR. (See Chapter 3 for further discussion.)

Note: Consumer fireworks are normally classed as 1.4G but may be classed by DOT as 1.4S on the basis of examination and testing in accordance with Title 49 CFR, § 173.56.

*** 1.5** United States laws and regulations prescribe mandatory requirements that a person must follow in order to market certain products. In these instances, failure to comply may be regarded by courts as negligence *per se* in product liability litigation.

*** 1.6** This Standard applies to fireworks devices, pyrotechnic articles, and novelties for entertainment purposes.

2. DEFINITIONS

*** 2.1 Approval** For purposes of this Standard, approval means the assignment of proper hazard class, EX (explosives approval) number, proper shipping name, and UN (United Nations) identification number by the DOT so that fireworks and novelties may be transported under conditions specified in Title 49, CFR. (See Chapter 5 for details.)

*** 2.2 Black Match (Instantaneous Fuse)** An uncovered fuse made from thread impregnated with black powder and used for igniting pyrotechnic devices. Black Match may be classed as 1.3G and described as Fuse, non-detonating, UN0101, under the provisions of this Standard. For any other classification, examination and testing as specified in Title 49 CFR, § 173.56, CFR is required. (See also Quickmatch.)

*** 2.3 Blowout** The unintended release of a pressure effect from other than the intended orifice of a fireworks device. Examples include expulsion of the bottom plug of a roman candle,

expulsion of the clay choke of a fountain, or the rupturing of the wall of a mine or shell.

*** 2.4 Burnout** The unintended escape of flame through the wall of a pyrotechnic chamber during functioning of a fireworks device.

*** 2.5 Burst Charge Chemical composition used to break open a fireworks device after it has been propelled into the air, producing a secondary effect such as a shower of stars. Burst charge is also sometimes referred to as expelling charge or break charge. Any burst charge containing metallic powder (such as magnalium or aluminum) less than 100 mesh in particle size, is considered to be intended to produce an audible effect, and is limited to 130 mg in 1.4G fireworks devices. Burst charge consisting of black powder or equivalent non-metallic composition is not considered to be intended to produce an audible effect when it is used to expel and ignite a secondary effect in a fireworks device. Burst charge for use in 1.3G fireworks is limited to black powder (potassium nitrate, sulfur, and charcoal) or similar pyrotechnic composition without metallic fuel for approval under the provisions of this standard.**

*** 2.6 Chemical Composition** All pyrotechnic and explosive composition contained in a fireworks device. Inert materials such as clay used for plugs, or organic matter such as rice hulls used for density control are not considered to be chemical composition.

*** 2.6.1 Explosive Composition** Any chemical compound or mixture, the primary purpose of which is to function by explosion, producing an audible effect (report) in a fireworks device.

*** 2.6.2 Pyrotechnic Composition** A chemical mixture which on burning, and without explosion, produces visible or brilliant displays or bright lights, or whistles or motion.

*** 2.7 Fireworks** Any device, other than a novelty or theatrical pyrotechnic article, intended to produce visible and/or audible effects by combustion, deflagration, or detonation. Fireworks are further described as Fireworks UN0336 (formerly Common Fireworks and now referred to in this Standard as Consumer Fireworks,) or Fireworks UN0335 (formerly Special Fireworks and now referred to in this Standard as Display Fireworks.) Fireworks may also be described as Fireworks UN0337 if examination and testing in accordance with Title 49 CFR, § 173.56 is performed that warrants that classification.

Note: Propelling and expelling charges consisting of a mixture of sulfur, charcoal, and potassium nitrate (saltpeter) or similar pyrotechnic compositions not containing metal powders are not considered as designed to produce audible effects.

*** 2.7.1 Consumer Fireworks (formerly Common Fireworks)** Any fireworks device in a finished state, exclusive of mere ornamentation, suitable for use by the public that complies with the construction, performance, composition, and labeling requirements promulgated by CPSC in Title 16, CFR, in addition to any limits and other requirements of this Standard. (See Chapter 3 for details.)

*** 2.7.2 Display Fireworks (formerly Special Fireworks)**
Fireworks devices in a finished state, exclusive of mere ornamentation, primarily intended for commercial displays which are designed to produce visible and/or audible effects by combustion, deflagration or detonation, including, but not limited to: salutes containing more than 130 mg (2 grains) of explosive composition; aerial shells containing more than 40 g of chemical composition exclusive of lift charge; and other exhibition display items that exceed the limits contained in this Standard for consumer fireworks. Certain devices intended for signaling, illuminating, and incendiary purposes and formerly classed, as Special Fireworks no longer fall into this fireworks category. (See Chapter 4 for details.)

*** 2.8 Electric Match (Igniter)** A device used for the electrical ignition of fireworks and pyrotechnic articles that contains a small amount of pyrotechnic material that ignites when a specified electric current flows through the leads.

*** 2.9 Labeling** A display of written, printed, or graphic matter upon a fireworks device and/or upon the immediate package of any such device(s). Included are diamond-shaped labels required by DOT to be displayed on outside packaging for transportation purposes . The term also includes any identification, cautions, and other information required by this Standard or by any federal government agency.

*** 2.10 Lift Charge Pyrotechnic composition used to propel a component of a mine or shell device into the air. Lift charge is limited to black powder (potassium nitrate, sulfur, and charcoal) or similar pyrotechnic composition without metallic fuel.**

*** 2.11 Marking.** The application of the proper shipping name, identification number (UN number), instructions, cautions, weight, or specification mark or combination thereof to a package of hazardous material. Marking also includes any required specification mark on a shipping package.

*** 2.12 Novelty** A device containing small amounts of pyrotechnic and/or explosive composition. Such devices produce limited visible or audible effects. **These items must be approved by DOT, and are normally classed as 1.4G. A different classification may be assigned based on testing and examination as specified in Title 49 CFR §CFR, § 173.56. Certain novelties which meet the criteria specified in Section 3.2 are not regulated as explosives, and approval by DOT is not required for those specific items.**

*** 2.13 Placard** A warning symbol of a square-on-point configuration mounted on each side and each end of a truck, rail car or freight container which informs the public and emergency personnel of the hazardous nature of the cargo, as specified in Title 49 CFR §CFR, § 172.

*** 2.14 Quickmatch (Instantaneous Fuse)** Black match that is encased in a loose-fitting paper or plastic sheath to make it burn extremely rapidly. Quickmatch is used for aerial shells and for simultaneous ignition of a number of pyrotechnic devices, such as lances in a ground display piece. Quickmatch may be approved under the provisions of this Standard and classed as 1.3G, described as Fuse, non- detonating, and assigned identification number UN0101. A different classification may be recommended based on testing and examination as specified in Title 49 CFR, §173.56.

*** 2.15 Safety Fuse** A fuse consisting of a thread-wrapped black powder train that has been coated with a water resistant material. Such fuse is typically 3/32 inches (2.4 mm) in outside diameter and frequently green in color. Safety Fuse is described as Fuse, Safety UN0105 and classed as 1.4S.

*** 2.16 Star** A pressed or consolidated pellet of pyrotechnic composition that is usually cylindrical, spherical, or rectangular in shape. Stars are fired from a launch tube by means of a propelling charge of black powder in roman candles and mines, or they are a component of an insert that is fired into the air in an aerial shell. Stars produce a visible display of color and light as they burn in the air, and sometimes a crackling or similar audible effect is also produced. Stars are typically 0.375-1.0 inch in diameter. Larger cylindrical stars are known as comets. A star is not considered a finished firework, and stars cannot be approved for transportation under the provisions of this Standard.

*** 2.17 Theatrical Pyrotechnics** Pyrotechnic devices for professional use in the entertainment industry similar to consumer fireworks in chemical composition and construction but not intended for consumer use. Such articles, meeting the lift and effect powder weight limits for similar consumer fireworks but not labeled as such, and containing only chemicals listed in table 4.3-1 may be approved under the provisions of this Standard and classified as Articles, Pyrotechnic, 1.4G, UN0431.

Note: Theatrical pyrotechnic devices may be classed by DOT as Articles, Pyrotechnic, 1.4S, UN0432 **or as Articles, Pyrotechnic, 1.3G, UN0430** on the basis of examination and testing as specified in Title 49 CFR, § 173.56.

3. REQUIREMENTS FOR CONSUMER FIREWORKS, NOVELTIES AND THEATRICAL PYROTECHNICS

Note 1: Devices in this category, formerly classed as Class C Explosive, Common Fireworks, are now classed as Fireworks 1.4G under the UN System, and referred to in this Standard as Consumer Fireworks.

Note 2: Devices intended for non-consumer use in the entertainment industry, termed Theatrical Pyrotechnics in this Standard, that meet the chemical composition weight requirements of this chapter may be classed as 1.4G and described as Articles, Pyrotechnic UN0431 under the provisions of this Standard, but are not required to comply with the fuse, construction, and labeling requirements of CPSC for consumer fireworks. Theatrical Pyrotechnics may or may not have an ignition device attached.

*** 3.1 Types of Consumer Fireworks** The following fireworks devices are subject to the requirements of chapter 3 of this Standard. (See Appendix A for diagrams.)

*** 3.1.1 Ground and Hand-held Sparkling Devices ("Sparklers") These devices are ground-based or hand-held devices that produce a shower of white, gold, or colored sparks as their primary pyrotechnic effect. Additional effects may include a colored flame, an audible crackling effect, an audible whistle effect, and smoke. These devices do not rise into the air, do not fire inserts or projectiles into the air, and do not explode or produce a report (a mild audible crackling-type effect is not**

considered to be a report.) Ground-based or hand-held devices that produce a cloud of smoke as their sole pyrotechnic effect are also included in this category. Types of devices in this category include:

*** 3.1.1.1 Cylindrical Fountain** Cylindrical tube containing not more than 75 g of pyrotechnic composition. Upon ignition, a shower of colored sparks, and sometimes a whistling effect or smoke, is produced. This device may be provided with a spike for insertion into the ground (Spike Fountain), a wood or plastic base for placing on the ground (Base Fountain), or a wood or cardboard handle to be hand held (Handle Fountain). When more than 1 tube is mounted on a common base, total pyrotechnic composition may not exceed 200 g. (See section 3.5 for exceptions.)

*** 3.1.1.2 Cone Fountain** Cardboard or heavy paper cone containing not more than 50 g of pyrotechnic composition. The effect is the same as that of a cylindrical fountain. When more than 1 cone is mounted on a common base, total pyrotechnic composition may not exceed 200 g. (See section 3.5 for exceptions.)

*** 3.1.1.3 Illuminating Torch** Cylindrical tube containing not more than 100 g of pyrotechnic composition that produces a colored flame upon ignition. May be spike, base, or hand held. When more than 1 tube is mounted on a common base, total pyrotechnic composition may not exceed 200 g. (See section 3.5 for exceptions.)

*** 3.1.1.4 Wheel** Pyrotechnic device intended to be attached to a post or tree by means of a nail or string. May have one or more drivers, each of which may contain not more than 60 g of pyrotechnic composition. No wheel may contain more than 200 g total pyrotechnic composition. Upon ignition, the wheel revolves, producing a shower of color and sparks and, sometimes, a whistling effect.

*** 3.1.1.5 Ground Spinner** Small device containing not more than 20 g of pyrotechnic composition, venting out an orifice usually on the side of the tube. Similar in operation to a wheel but intended to be placed flat on the ground and ignited. A shower of sparks and color is produced by the rapidly spinning device.

*** 3.1.1.6 Flitter Sparkler** Narrow paper tube attached to a stick or wire and filled with not more than 5 g of pyrotechnic composition that produces color and sparks upon ignition. The paper at one end of the tube is ignited to make the device function.

*** 3.1.1.7 Toy Smoke Device** Small plastic or paper item containing not more than 100 g of pyrotechnic composition that, upon ignition, produces white or colored smoke as the primary effect. **(For devices containing less than 5 g of pyrotechnic composition, see Section 3.2, Novelties.)** Toy smoke devices, when complying with the provisions of this section, are classed as Fireworks, 1.4G unless classed as 1.4S or not regulated as an explosive on the basis of examination and testing as specified in Title 49 CFR, § 173.56.

*** 3.1.1.8 Wire Sparkler/Dipped Stick** These devices consist of a metal wire or wood dowel that has been coated with pyrotechnic composition. Upon ignition of the tip of the device, a shower of sparks is produced. Sparklers may contain up to 100 g of **pyrotechnic** composition per item. **Certain wire sparklers and dipped sticks are**

considered as Novelties under this Standard, see Section 3.2.

*** 3.1.2 Aerial Devices**

*** 3.1.2.1 Sky Rockets and Bottle Rockets** Cylindrical tube containing not more than 20 g of chemical composition with a wooden stick attached for guidance and stability. Rockets rise into the air upon ignition. A burst of color and/or sound may be produced at or near the height of flight.

*** 3.1.2.2 Missile-Type Rocket** A device similar to a sky rocket in size, composition, and effect that uses fins rather than a stick for guidance and stability. Missiles shall contain not more than 20 g of total chemical composition.

*** 3.1.2.3 Helicopter, Aerial Spinner** A tube containing not more than 20 g of chemical composition, with a propeller or blade attached. Upon ignition the rapidly spinning device rises into the air. A visible or audible effect may be produced at or near the height of flight.

*** 3.1.2.4 Roman Candle** Heavy paper or cardboard tube containing not more than 20 g of chemical composition. Upon ignition, stars (see section 2.14) are individually expelled.

*** 3.1.2.5 Mine and Shell Devices** Heavy cardboard or paper tube usually attached to a wooden or plastic base **and containing not more than 60 g of total chemical composition (lift charge, burst charge, and visible/audible effect composition.)** Upon ignition stars, components producing reports containing up to 130 mg of explosive composition per report, or other devices are propelled into the air. **The term mine refers to a device with no internal components containing a bursting charge, and the term shell refers to a device that propels a component that subsequently bursts open in the air. A mine or shell device may contain more than 1 tube provided the tubes fire in sequence upon ignition of 1 external fuse. The term cake refers to a dense-packed collection of mine/shell tubes. Total chemical composition including lift charges of any multiple tube devices may not exceed 200 g. (See section 3.5) The maximum quantity of lift charge in any one tube of a mine or shell device shall not exceed 20 g, and the maximum quantity of break or bursting charge in any component shall not exceed 25% of the total weight of chemical composition in the component.**

Note: Shells that are offered for transportation without a launching tube may not be approved as Fireworks, 1.4G, UN0336 under the provisions of this Standard, except as provided in section 3.1.2.6 for kits. Aerial shells without launching tubes may be approved for transportation as Fireworks, 1.3G, UN0335. (See section 4.1.1)

*** 3.1.2.6 Aerial Shell Kit, Reloadable Tube** A package (kit) containing a cardboard, **high-density polyethylene (HDPE), or equivalent** launching tube and not more than **12** small aerial shells. (see 4.1.1) **Each aerial shell is limited to a maximum of 60 g of total chemical composition (lift charge, burst charge, and visible/audible effect composition,)** and the maximum diameter of each shell shall not exceed 1.75 inches **. In addition, the maximum quantity of lift charge in any shell shall not exceed 20 g,**

and the maximum quantity of break or bursting charge in any shell shall not exceed 25% of the total weight of chemical composition in the shell. The total chemical composition of all the shells in a kit, including lift charge, shall not exceed 400 g for approval under the provisions of this Standard . The user lowers a shell into the launching tube, at the time of firing, with the fuse extending out of the top of the tube. After firing, the tube is then reloaded with another shell for the next firing **. All launching tubes must be capable of firing twice the number of shells in the kit without failure of the tube. Each package of 12 shells must comply with all warning label requirements of CPSC.**

*** 3.1.3 Audible Ground Devices**

*** 3.1.3.1 Firecracker** Small, paper-wrapped or cardboard tube containing not more than 50 mg of explosive composition, those used in aerial devices may contain not more than 130 mg of explosive composition per report. Upon ignition, noise and a flash of light are produced.

Note: Firecrackers are not subject to the requirements of fuse in section 3.5.1 and chemicals in section 3.6.1.

*** 3.1.3.2 Chaser** Paper or cardboard tube venting out the fuse end of the tube containing not more than 20 g of chemical composition. The device travels along the ground upon ignition. A whistling effect, or other noise, is often produced. Explosive composition may be included to produce a report but may not exceed 50 mg.

*** 3.2 Novelties The following devices do not require approval from DOT and are not regulated as explosives under the provisions of this Standard, provided that they are manufactured and packaged as described below. Any devices not complying with the requirements set forth in this section require approval from DOT, and are classed as Fireworks 1.4G and described as Fireworks, UN0336 unless they are classed as 1.4S or not regulated as hazardous materials based on examination and testing as specified in Title 49 CFR, § 173.56. Devices described in this section which are not regulated as explosives are not considered to be consumer fireworks; however, these devices must still comply with all labeling requirements of CPSC applicable to consumer fireworks devices. Novelties must be packaged in strong outer packagings that are sealed to prevent leakage of the contents. Each package, and overpack if used, offered for surface transportation must be plainly marked NOVELTIES, NOT REGULATED, EXCEPT WHEN TRANSPORTED BY AIR , IN CONFORMANCE WITH APA STANDARD 87-1. If novelties are transported by aircraft, they must be classed, labeled, and described as Flammable Solid, Inorganic, n.o.s (Novelties), UN3178.**

*** 3.2.1 Party Popper Small devices with paper or plastic exteriors that are actuated by means of friction (a string or trigger is typically pulled to actuate the device.) They frequently resemble champagne bottles or toy pistols in shape. Upon activation, the device expels flame-resistant paper streamers, confetti, or other novelties and produces a small report. Devices may contain not more than 16 mg (0.25 grains) of explosive composition, which is limited to potassium chlorate and red phosphorus. These devices must be packaged in an inner**

packaging which contains a maximum of 72 devices.

*** 3.2.2 Snapper Small, paper-wrapped devices 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. Snappers must be in inner packages not to exceed 50 devices each, and the inner packages must contain sawdust or a similar, impact-absorbing material.**

*** 3.2.3 Toy Smoke Devices Small devices consisting of cork-like spheres, or cardboard or plastic tubes, containing not more than 5 g of pyrotechnic composition that produces a small cloud of smoke after activation. The devices are typically ignited by means of safety fuse. The outer configuration is usually a sphere (smoke ball), cylindrical tube, or paper cone. The chemical composition for white smoke consists of potassium nitrate and sulfur, while colored smokes are produced by mixtures consisting of potassium chlorate, sulfur or sugar, and a sublimable organic dye. Mixtures containing potassium chlorate must also contain a neutralizer/coolant such as sodium bicarbonate. To be eligible for not regulated status, these devices must produce smoke as their sole pyrotechnic effect following ignition, and must be packaged in inner units containing a maximum of 72 devices.**

*** 3.2.4 Snakes, Glow Worms Pressed pellets of pyrotechnic composition that contain 2 g or less of composition per article. Upon burning, they produce a snake-like ash that expands in length as the pellet burns. Chemical compositions vary, but typically contain ammonium perchlorate, nitrated pitch, asphaltum, and similar carbonaceous materials. These devices are limited to a maximum of 25 pellets per inner package in order to be transported as not regulated devices.**

*** 3.2.5 Wire Sparklers, Dipped Sticks These devices consist of a metal wire or wood dowel that has been coated with pyrotechnic composition. Upon ignition of the tip of the device, a shower of sparks is produced. Sparklers may contain up to 100 g of composition per item. Sparklers typically use barium nitrate as the oxidizer, with aluminum and dextrine as fuels. Iron filings produce the spark effect. Color-producing sparklers use potassium perchlorate as an oxidizer. Any sparkler containing a chlorate or perchlorate oxidizer is limited to a maximum of 5 g of composition per article. Sparklers must be packaged in inner packagings that contain 8 devices or less to be transported as not regulated devices.**

*** 3.3 Toy Caps** Toy plastic or paper caps for toy pistols in sheets, strips, rolls, or individual caps, containing not more than an average of 0.25 grains (16 mg) of explosive composition per cap. Toy caps are described as Toy Caps NA0337 and classed as 1.4S. Toy caps shall only be approved for transportation using the procedure specified in Title 49 CFR, § 173.56(b).

*** 3.4 Other Devices** The Approvals Branch at DOT should be contacted regarding the requirements and procedures for approval of any device that is a unique shape or design, or any device that produces unique pyrotechnic or explosive effects, or combinations of effects not enumerated in Chapter 3 of this Standard.

* 3.5 Multiple Tube Fireworks Devices and Pyrotechnic Articles

*** 3.5.1** Multiple tube devices contain more than one cardboard tube. The ignition of one external fuse causes all of the tubes to function in sequence. The tubes are either individually attached to a wood or plastic base, or are dense-packed and are held together by glue, wire, string, or other means that securely holds the tubes together during operation.

*** 3.5.2** Multiple tube devices are normally limited to a maximum of 200 g of total pyrotechnic composition for approval as Fireworks, UN0336, 1.4G or Article, Pyrotechnic, UN0431, 1.4G under this Standard. (See 3.5.4 for exceptions.) The weight of chemical composition per tube is limited to the weight limit for the specific type of device in the tube. (See section 3.1 for the weight limits per tube, based on type of effect.)

*** 3.5.3** The connecting fuses on multiple tube devices must be fused in sequence so that the tubes fire sequentially rather than all at once.

*** 3.5.4** When the tubes are securely attached to a wood or plastic base, and the tubes are separated from each other on the base by a distance of at least 0.50 inch (12.7 mm), a maximum total weight of 500 g of pyrotechnic composition shall be permitted for approval as 1.4G.

* 3.6 Specific Requirements for Consumer Fireworks

* 3.6.1 Fuse

*** 3.6.1.1** Only safety fuse or other fuse that has been protected to resist side ignition may be used in consumer fireworks devices subject to the requirements of this standard.

Note: See Appendix B for method of measuring resistance to side ignition. Devices, such as ground spinners, that require a restricted orifice for proper functioning and that contain less than 6 g of pyrotechnic composition, are not subject to the requirements of 3.6.1.1.

*** 3.6.1.2** The fuse must be of sufficient length to burn at least 3 seconds but not more than 9 seconds before ignition of the device. The fuse for roman candles or similar devices requiring a longer fuse for safe functioning may burn up to 12 seconds before ignition of the device.

*** 3.6.1.3** The fuse must be securely attached so that it will support either the weight of the device plus 8 ounces (227 g) of dead weight or double the weight of the device, whichever is less, without separation from the fireworks device.

*** 3.6.1.4** The fuse on multiple tube devices must be fused in sequence between individual tubes.

* 3.6.2 Construction

*** 3.6.2.1 Bases** Each fireworks device that requires a base shall utilize a base of wood or plastic (preferably non-brittle, medium impact polystyrene.) The minimum horizontal dimension or the diameter of the base must be equal to at least ? the height of the device (excluding any protruding fuse,) unless the device remains upright when subjected to a tilt of 12° from the horizontal. Bases shall remain firmly attached to the item during transportation, handling and normal operation. (See Appendix B for method of measuring.)

Note: Multiple tube mine and shell devices which contain at least one launching tube with an inner diameter of 1.5 inches or greater must be stable when placed on a test fixture that holds the device at a 60 ^{o} angle. This is a static test , the fireworks device is not ignited while at a 60 ^{o} angle.

*** 3.6.2.2 Sticks** The stick on a rocket (sky rockets and bottle rockets,) and on other fireworks devices that utilize a stick, shall be firmly attached to the body of the device by means of glue, staples, or wire. Sticks must be secure enough to remain firmly attached during transportation, handling, and normal operation. Sticks shall be rigid and of such length so as to assure stable flight. The maximum curvature of such stick(s) may not exceed 1 inch (25 mm.) (See Appendix B for method of testing rigidity.)

*** 3.6.2.3 Handles** Each fireworks device which is intended to be hand-held, and is so labeled, must incorporate a handle at least 4 inches (101 mm) in length. Handles must remain firmly attached during transportation, handling, and normal operation of the device. Or, must consist of an integral section of the device which extends at least 4 inches (101 mm) below the pyrotechnic chamber. Sparklers 10 inches (253 mm) or less in length shall have handles at least 3 inches (76 mm) in length.

*** 3.6.2.4 Spikes** Spikes which constitute an integral part of a fireworks device shall protrude at least 2 inches (51 mm) from the base of the device and shall have a blunt tip not less than 1/8 inch (3.2 mm) in diameter or 1/8 inch (3.2 mm) square.

*** 3.6.2.5 Pyrotechnic Chamber** The pyrotechnic chamber in a fireworks device that functions other than by exploding must be of sufficient thickness and rigidity to allow normal functioning of the device without burnout or blowout. The chamber must also be constructed and sealed to prevent leakage of the pyrotechnic composition during transportation, handling, and normal operation.

*** 3.6.2.6 Wings** Wings on helicopter-type rockets and similar devices must be securely attached to the body by means of gluing, wiring, or other appropriate means so that they will remain firmly attached during transportation, handling, and normal operation.

*** 3.6.2.7 Wheel Devices** Each wheel device must be constructed so that the driver(s), motor(s), and axle(s), when needed (*i.e.,* on wheel devices intended to operate in a fixed location) remain securely attached to the device during transportation, handling, and normal operation.

*** 3.6.2.8 Aerial Devices** Each device intended to produce a visible or audible effect high in the air must be designed to produce the effect at or near the apex of its flight.

*** 3.6.2.9 Smoke Devices** Each smoke device must be constructed so that it will neither burst nor produce excessive flame (excluding fuse and small but brief bursts of flame accompanying normal smoke production.) Smoke devices may not contain plastic in direct contact with the pyrotechnic composition, nor may smoke devices resemble, in color and configuration, banned fireworks devices, such as M-80 salutes, cherry bombs, or silver salutes.

* 3.7 Prohibited Chemicals and Components

*** 3.7.1 Prohibited Chemicals** Consumer fireworks devices offered or intended for sale to the public may not contain a chemical enumerated in table 3.7-1, except for small amounts (less than 0.25% by weight) as impurities, and except as specified therein.

Note: Display fireworks and theatrical pyrotechnics (See section 2.15) are not subject to the provisions of this section.

*** TABLE 3.7-1 Prohibited Chemicals for Consumer Fireworks**

1. Arsenic sulfide, arsenates, or arsenites
2. Boron
3. Chlorates, except:
   a. In colored smoke mixtures in which an equal or greater weight of sodium bicarbonate is included
   b. In party poppers
   c. In those small items (such as ground spinners) wherein the total powder content does not exceed 4 g of which not greater than 15% (or 600 mg) is potassium, sodium, or barium chlorate
   d. In firecrackers
   e. In toy caps
4. Gallates or gallic acid
5. Magnesium (magnesium/aluminum alloys, called magnalium, are permitted)
6. Mercury salts
7. Phosphorus (red or white) (red phosphorus is permissible in caps and party poppers)
8. Picrates or picric acid
9. Thiocyanates
10. Titanium, except in particle size that does not pass through a 100-mesh sieve
11. Zirconium
12. Lead tetroxide (red lead oxide) **<u>and other lead compounds</u>**

*** 3.7.2 Prohibited Components** No component of any consumer fireworks device or novelty, may upon functioning, project or disperse any metal, glass, or brittle plastic fragments.

*** 3.7.3 Forbidden Devices** Any device intended for sale to the public that produces an audible effect (other than a whistle) by a charge of more than 130 mg (2 grains) of explosive composition per report. Devices obtained for *bona-fide* pest control purposes in accordance with regulations promulgated by CPSC in Title

16, CFR are not forbidden if approved in accordance with Title 49 CFR, § 173.56.

Note: For transportation purposes the term, forbidden devices, may also include mixtures or devices that contain a chlorate and an ammonium salt, or an acidic metal, salt. Or, devices that contain yellow or white phosphorus, devices that combine an explosive and a detonator or blasting cap. And, any device that has not been approved by DOT.

*** 3.8 Specific Requirements for Theatrical Pyrotechnics**

*** 3.8.1** Theatrical pyrotechnics that are approved as UN0431, Articles, Pyrotechnic, 1.4G shall not bear a warning label that resembles the required wording on a consumer fireworks device. A warning label providing instructions to a trained operator is permitted, but alternative wording must be used.

*** 3.8.2** Theatrical pyrotechnics may or may not have an ignition device attached.

*** 3.8.3** All requests for approval of a device as Articles, Pyrotechnic shall be accompanied by a signed certification stating that the article is intended for professional use in the entertainment industry and will not be offered for sale to the general public.

*** 3.8.9** Approvals for classification as Articles, Pyrotechnic shall be evaluated based on the weight of pyrotechnic composition in the individual article, and compared to the allowable weights for the corresponding category of 1.4G consumer fireworks. If a 1.4G classification is desired for an article containing more pyrotechnic composition than is permitted for a comparable consumer firework, the DOT approval procedure in Title 49 CFR, § 173.56(b)(1) shall be followed.

*** 3.9 Approval.** All consumer fireworks (Fireworks, UN0336,) novelties and theatrical pyrotechnics offered for transportation in the United States shall be classified and approved for transportation purposes by DOT, in accordance with the following procedure:

***3.9.1** Fireworks and novelties containing mixtures of chemicals specified in table 4.3-1, but none of the chemicals prohibited by section 3.7. For each item in which approval is sought, manufacturers shall submit a copy of an approval application (see Appendix D) to DOT. DOT may issue an approval for the device as 1.4G based on the information contained in the form or, at its option, may require laboratory examination by a person approved by DOT to examine explosives.

*** 3.9.2** Fireworks and novelties containing any chemical not specified in table 4.3-1, but none of the chemicals prohibited by section 3.7. For each item in which approval is sought, the manufacturer shall obtain a report from a person approved by DOT to examine explosives or, obtain a test report from a recognized competent authority (for fireworks manufactured abroad.) The manufacturer shall then submit an approval application (see appendix D) together with the appropriate examination reports to DOT. DOT may then issue approval based on the information contained in the application and accompanying laboratory reports, or may require additional information.

*** 3.9.3** Theatrical pyrotechnics containing only mixtures of chemicals specified in table 4.3-1. For each item in which approval is sought, manufacturers shall submit a copy of an approval application (see appendix D) to DOT. DOT may issue an approval for the device as 1.4G based on the information contained in the form. Or, at DOT's discretion, may require a report from a person approved by DOT to examine explosives or may require a test report from a recognized competent authority (for articles manufactured abroad.)

*** 3.9.4** Theatrical pyrotechnics containing any chemical not specified in table 4.3-1. For each item in which approval is sought, the manufacturer shall obtain a report from a person approved by DOT to examine explosives or obtain a test report from a recognized competent authority (for articles manufactured abroad.) The manufacturer shall then submit an approval application (see Appendix D) together with the appropriate laboratory reports to DOT. DOT may then issue an approval based on the information contained in the application and accompanying laboratory reports.

*** 3.9.5** If classification other than 1.4G is sought, the DOT approval procedure in Title 49 CFR, § 173.56(b)(1) must be followed. This includes obtaining a laboratory report from a person approved by DOT to examine explosives.

*** 3.10 Marking and Labeling** Fireworks intended for consumer sale and use shall be labeled in conformance with the requirements of the *Federal Hazardous Substances Act* (FHSA) and regulations promulgated thereunder in Title16 CFR, § 1500. All outside packaging containing fireworks must be marked and labeled in conformance with Title 49 CFR, § 172. (See appendix C and chapter 5 for details and examples.)

4. REQUIREMENTS FOR DISPLAY FIREWORKS DEVICES

Note: Devices in this category, formerly classed as Class B Explosives, Special Fireworks, are now classed as 1.3G, under the UN system and referred to as display fireworks.

*** 4.1 Types of Display Fireworks Devices.** The following fireworks devices are subject to the requirements of chapter 4:

***4.1.1 Aerial Shell** A cylindrical or spherical cartridge containing **lift charge, burst charge and effect composition.)** Shells are most commonly 2 inches (50 mm) to 6 inches (152mm) in diameter, and are fired from metal, high-density polyethylene (HDPE), fiberglass, or heavy cardboard tubes. Upon firing, the lift charge is consumed and the cartridge is expelled into the air. A pyrotechnic effect is produced near the apex of flight. Aerial shells are typically ignited by means of a quickmatch fuse or electric match. **Burst charge used in aerial shells is limited to black powder (potassium nitrate, sulfur, and charcoal) or similar pyrotechnic composition may not be approved under the provisions of this Standard as 1.3G articles. Aerial shells exceeding 10 inches (250 mm) in diameter or containing a burst charge that has metallic fuel may be approved under this Standard as Fireworks, UN0333, 1.1G.**

Note: All aerial shells that are not contained in a launch tube (section 3.1.2.5) or sold as part of a reloadable shell kit (section 3.1.2.6) may only be approved under the provisions of this Standard as Fireworks, UN0335, 1.3G.

* **4.1.2 Salute** Paper-wrapped, cardboard tube, or sphere containing explosive composition in excess of 130 mg (2 grains.) Upon ignition, noise and a flash of light are produced. **The maximum quantity of explosive composition in a salute shell, or in a salute component of a multi-effect shell, shall not exceed 2.5 oz (71 g) for approval under this Standard as a 1.3G article. Salutes or articles with salute components containing more than 2.5 oz (71g) of explosive composition per salute or per component may be approved under this Standard as Fireworks, UN0333 1.1G.**

* **4.1.3 Other Fireworks Devices**

* **4.1.3.1** When the quantity of explosive and/or pyrotechnic composition exceeds the limit for inclusion in the Fireworks, UN0336 category, devices enumerated in section 3.1 are classed as 1.3G and described as Fireworks, UN0335 (formerly described as Fireworks, Special and classed as Class B Explosives.) This includes multiple tube devices containing more than 200 g of total chemical composition, except as otherwise specified in section 3.5.

* **4.1.3.2** Certain devices intended for signaling, illuminating, and incendiary purposes such as: railway torpedoes; airplane flares; illuminating projectiles; incendiary and smoke projectiles; as well as flash cartridges (formerly classed as special fireworks,) no longer fall into the fireworks category under DOT regulations effective on 10/1/91 and are not part of this Standard.

* **4.2 Construction of Aerial Shells**

* **4.2.1** Each shell shall be identified only in terms of the inside diameter (not the circumference) of the mortar in which it can be safely used (*e.g.*, 3 inches (76mm) shells are only for use in 3 inch (76mm) mortars.)

* **4.2.2** Each shell shall be constructed so that the difference between the inside diameter of the mortar in which it can be safely used and the outside diameter of the shell is not less than ? inch (3.2mm) and not more than ¼ inch (6.4mm) for shells not exceeding 3 inches (76mm) or ½ inch (12.7mm) for shells larger than 3 inches (76mm.)

* **4.2.3** Each shell must be labeled with the type of shell, the diameter measurement, and the name of the manufacturer or distributor.

* **4.2.4** The length of the internal delay fuse and the amount of lift charge must be sized to insure proper functioning of the shell in its mortar. Quickmatch fuse, if required, must be long enough to allow not less than 6 inches (152mm) of fuse to protrude from the mortar after the shell is properly inserted.

* **4.2.5** The length of exposed black match on a shell, if required, may not be less than 3 inches (76mm) and the fuse shall not be folded or doubled back under the safety cap. Also, the time delay between ignition of the tip of the exposed black match and ignition of

the lift charge may not be less than 3 seconds to allow the operator to retreat safely.

*** 4.2.6** A safety cap shall be installed over the exposed end of the fuse, if ignition fuse is present. The safety cap must be of a different color than that used for the paper of the fuse.

*** 4.2.7** If an electric match is attached to an aerial shell or other display firework prior to transportation, the requirements in section 5.8 must be complied with.

***4.3** **Approval** Prior to being offered for transportation in the United States all display fireworks (Fireworks, 1.3G) must be classified and approved by DOT in accordance with the following procedures:

*** 4.3.1** Devices containing only mixtures of chemicals specified in table 4.3-1. The manufacturer shall submit a copy of an approval application (see appendix D) to DOT for any item that has not previously been approved by DOT. DOT may issue an approval for the device based on the information contained in the form. Or, at its discretion, may require examination by a person approved by DOT to examine explosives, or may accept a test report from a recognized competent authority (for fireworks manufactured abroad.)

*** 4.3.2** Devices containing any chemical not specified in table 4.3-1. For each item in which approval is sought, the manufacturer shall submit a sample of each pyrotechnic mixture that contains any chemical not specified in table 4.3-1 to a person approved by DOT to examine explosives. Or, the applicant may obtain a test report from a recognized competent authority (for fireworks manufactured abroad.) The manufacturer shall then submit an approval application (see appendix D), together with the appropriate laboratory reports to DOT. DOT may then issue approval based on the information contained in the application and accompanying laboratory report(s).

TABLE 4.3-1
Standard Fireworks Chemicals

Chemical	Typical Use
Aluminum	Fuel
Ammonium Perchlorate	Oxygen Donor
Antimony	Fuel
Antimony Sulfide	Fuel
Barium Carbonate	Neutralizer
Barium Nitrate	Oxygen Donor
Barium Sulfate	Oxygen Donor
Bismuth Oxide	Oxygen Donor
Boric Acid	Neutralizer
Calcium Carbonate	Neutralizer
Calcium Sulfate	Oxygen Donor
Carbon or Charcoal	Fuel
Copper Metal	Color Agent
Copper Oxide	Oxygen Donor/Color Agent
Copper Salts (except Copper Chlorate)	Color Agent
Dextrine	Fuel/Binder
Hexamethylenenetetramine (Hexamine)	Fuel
Iron and Iron Alloys (e.g., ferro/titanium)	Fuel
Iron Oxide	Oxygen Donor
Magnalium (Magnesium/Aluminum)	Fuel
Magnesium (in display fireworks and theatrical pyrotechnics only)	Fuel
Magnesium Carbonate	Neutralizer
Magnesium Sulfate	Oxygen Donor
Nitrocellulose (see Miscellaneous Compounds)	
Nitrocellulose Based Lacquers	Binder
Phosphorus, Red (only as provided in table 3.7-1)	Fuel
Potassium or Sodium Benzoate	Whistle
Potassium Bichromate (Potassium Dichromate) (not to exceed 5% of formulation)	Oxygen Donor
Potassium Chlorate (only as provided in table 3.7-1)	Oxygen Donor
Potassium Hydrogen Phthalate	Whistle
Potassium Nitrate	Oxygen Donor
Potassium Perchlorate	Oxygen Donor
Potassium Sulfate	Oxygen Donor
Silicon	Fuel
Sodium Bicarbonate (Sodium Hydrogen Carbonate)	Neutralizer
Sodium Nitrate	Oxygen Donor
Sodium Salicylate	Whistle
Sodium Salts (except Sodium Chlorate)	Color Agent
Sodium Sulphate	Oxygen Donor
Strontium Carbonate	Color Agent
Strontium Nitrate	Oxygen Donor
Strontium Salts (except Strontium Chlorate)	Color Agent
Strontium Sulfate	Oxygen Donor
Sulfur	Fuel
Titanium (particle size must not pass through 100 mesh sieve if 1.4G or 1.4S Fireworks)	Fuel

Miscellaneous Compounds : Organic compounds may be compounds such as: lactose; shellac; red gum; chlorinated paraffin; and polyvinyl chloride that consist of some combination of carbon with hydrogen, oxygen and/or chlorine. Nitrogen may be present if it accounts for less than 10% (by weight) of the compound.

Nitrocellulose with not more than 12.6% nitrogen by mass, that meets the criteria for classification as a 4.1 flammable solid, is permitted as a propelling or expelling charge provided there is less than 15 g of nitrocellulose per article.

Note: Exact chemical identity of each organic compound must be included when submitting an approval application (appendix D) to DOT.

*** 4.4 Approval for Combination Devices for Display Purposes** When two or more articles of consumer or display fireworks, or theatrical pyrotechnics (already approved by DOT) are combined to form one unit, a separate approval for the combination device is not required if all of the following conditions are met:

*** 4.4.1** The combination device is to be used for display or entertainment purposes, but is not intended for consumer use.

*** 4.4.2** The combination device is constructed from approved fireworks, novelties, and theatrical pyrotechnics.

*** 4.4.3** The combination device is transported by private carrier.

*** 4.4.4** The assembled unit is transported using the EX numbers for the individual components.

*** 4.4.5** If all components of the combination device have been approved as 1.4G articles, the combination item is classed as a 1.4G article provided that the total weight of pyrotechnic composition (including lift and effect charges) in the article does not exceed 200 g. **(see section 3.5 for exception)** The combination device shall be described as UN0431, Articles, Pyrotechnic, 1.4G if all of the components are approved as UN0431. Otherwise, the device shall be described as UN0336, Fireworks, 1.4G.

*** 4.4.6** If one or more of the components has been classed as a 1.3G Article, or if the total weight of pyrotechnic composition (including lift and effect charges) is more than 200 g **(see section 3.5 for exception)**, then the assembled unit is classed as a 1.3G Article. The combination device shall be described as UN0430, Articles, Pyrotechnic, 1.3G if all of the components are classed as either UN0430 or UN0431. Otherwise, the device shall be described as UN0335, Fireworks, 1.3G.

5. SHIPPING REQUIREMENTS

*** 5.1 Transportation Regulating Authorities** Transportation of fireworks is regulated by DOT. Some states and municipalities also regulate transportation of fireworks through their jurisdiction, often by incorporation of federal regulations.

*** 5.2 Approval** Except for samples prepared in accordance with DOT regulations, **or unless specifically permitted by this Standard** , no fireworks device or novelty may be offered for transportation or transported until it is classed and approved by DOT, and an approval number (EX number) is issued (Title 49 CFR, § 173.56.) (see chapters 3-4 and appendix D)

*** 5.2.1** EX numbers for fireworks contained in a shipping carton must be marked on the shipping carton or on the shipping paper.

*** 5.2.2** Cartons containing 5 or more different fireworks devices must be marked with at least 5 of the EX numbers covering items in the carton, or the EX numbers must appear on the shipping paper. (Title 49 CFR, § 172.320(c) and (d))

*** 5.3 Packaging** With certain exceptions, Consumer Fireworks UN0336, Display Fireworks UN0335, Articles Pyrotechnic UN0431 and Novelties, must be securely packaged in containers complying with DOT regulations Title 49 CFR, § 178. Gross weight limitation per package is now dictated by the weight marked on the certified packaging. Articles with match or friction tip ignition must be packed so that each individual tip is protected against accidental contact or friction. Loose chemical composition may not be present in packages in transportation. (Title 49 CFR, §172.102(c), Special Provision (108))

*** 5.4 Placards** Unless otherwise provided, each motor vehicle, freight container and rail car must bear appropriate placards on each end and each side (Title 49 CFR, § 172.504 (a).) Vehicles containing packages of consumer fireworks or novelties which are labeled 1.4G require a 1.4G or Explosive 1.4G placard (Title 49 CFR, § 172.523,) and use of the word explosive is optional (Title 49 CFR, § 172.519(b)(3),) except highway and rail shipments of less than 1,000 pounds gross weight of such fireworks need not bear a placard (Title 49 CFR, § 172.504(c).) Vehicles containing display fireworks in any quantity require a 1.3G or Explosive 1.3G placard (Title 49 CFR, § 172.522) and use of the word explosive is optional (Title 49 CFR, § 173.519(b)(3).) If both 1.4G and 1.3G are present in a shipment, the 1.3G placard is required, and the 1.4G placard is not needed.

*** 5.5 Package Marking and Labeling** Each person who offers fireworks for transportation shall ensure that the package displays the appropriate square-on-point label (Title 49 CFR, § 172.400(a) and 172.411.) Use of the word explosive on the 1.3G and 1.4G labels is not required (Title 49 CFR §172.405(a).) Consumer fireworks, toy smoke devices, and trick noisemakers are either classed as 1.4G, 1.4S, or not regulated for transportation purposes. Display fireworks are classed as 1.3G (Title 49 CFR, § 172.101.) The label must be printed or affixed to the surface of the package near the proper shipping name and identification number, which are also required to appear on the package (Title 49 CFR, § 172.301(a).)

*** 5.6 Shipping Papers** Each person who offers a fireworks device or novelty for transportation shall describe the item on a shipping paper. The description must include the proper shipping name (see Title 49 CFR § 172.101, hazardous materials table, col. 2) the hazard class of the material (col. 3,) the identification number (col. 4,) the packing group (col. 5,) and the total quantity covered by the description (Title 49 CFR § 172.202(a).) Consumer fireworks should be described as follows: Fireworks, 1.4G, UN 0336, PG II, *x* lb. *or* kg. Display fireworks should be described as Fireworks, 1.3G, UN 0335, PG II, *x* lb. *or* kg. In

addition, the shipper shall certify that the shipment is properly classified, marked and labeled (Title 49 CFR § 172.204(a).)

Note: EX numbers shall also appear on shipping papers unless they are marked on each shipping carton.

* 5.7 Special Packaging Provisions for Transportation in a Motor Vehicle by Private Carrier

*** 5.7.1** Fireworks articles such as large set pieces, that are too large to be readily placed into fiberboard cartons, shall be permitted to be transported without external packaging to a display site provided that the articles are securely attached to the inside walls of the vehicle by means of wire, wood, or rope and provided that all fuse is protected against accidental ignition by means of a paper covering or paper end cap. All other packages in the vehicle shall be secured to prevent accidental movement and contact with the unpackaged articles.

*** 5.7.2** Fusees (highway flares) for use in a fireworks display shall be permitted to be transported in a motor vehicle with fireworks, provided that the flares are properly packaged in accordance with Title 49, CFR.

*** 5.7.3** Display fireworks remaining unfired at the conclusion of a display shall be permitted to be repacked in the certified packaging used to bring the fireworks to the display site. The maximum gross weight (printed as part of the box certification marking) authorized for a fiberboard carton shall not be exceeded. The fireworks shall be removed to authorized storage, by means of motor vehicle, as soon as possible following the display.

*** 5.7.4** Misfired devices that are to be returned from the display site to the supplier shall be packed separately from unused, unfired devices, and shall be transported only by private motor carrier.

* 5.8 Requirements for an Electric Match (Igniter) Attached to a Display Firework Prior to Transportation

*** 5.8.1** Fireworks with electric matches attached shall only be transported from a fireworks manufacturer's or display operator's facility to a fireworks display site, or to an approved storage for subsequent shipment to a display site.

*** 5.8.2** The fireworks and the electric matches must be separately approved and assigned EX numbers in accordance with Title 49 CFR, § 173.56.

*** 5.8.3** Report shells (salutes) that exceed 3 inches in diameter or contain more than 70 g (2.5 oz) of salute powder shall not be transported with electric matches attached.

*** 5.8.4** All electric matches that are pre-attached to fireworks for transportation must be certified by the manufacturer to be thermally stable at 150° C for 24 hours.

*** 5.8.5** All electric matches that are pre-attached to fireworks for transportation shall be rated by the manufacturer to have a no fire current of not less than 0.20 amperes (*i.e.*, the

match does not ignite when tested with a current of less than 0.20 amperes.)

*** 5.8.6** The electric match shall be securely attached to the fuse or to the lift charge so as to prevent significant movement of the igniter.

*** 5.8.7** When the electric match is placed directly into the lift charge of a firework, the electric match shall have a covering (shroud) placed over the match head itself.

*** 5.8.8** The leg wires of the electric match shall be shorted (shunted) at all times during transportation.

*** 5.8.9** The transportation of any UN0335, Fireworks, 1.3G with attached electric matches by aircraft is prohibited.

6. REFERENCES

*** 6.1** Title 49 CFR, § 171-180, DOT This document can be found online at *www.access.gpo.gov/nara/cfr/waisidx_99/49cfrv2_99.html.* A hard copy may be purchased from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, or as republished by Bureau of Explosives as Hazardous Materials Regulations of the Department of Transportation, Association of American Railroads, 50 F Street, NW, Washington DC 20001.

*** 6.2** Title 16 CFR, § 1000 to End, CPSC This document can be found online at: *www.access.gpo.gov/nara/cfr/waisidx_00/16cfrv2_00.html.* A hard copy may be purchased from the US GPO (see section 6.1 for address.) Extracts of these regulations pertaining to fireworks only may be purchased from the American Pyrotechnics Association.

AMERICAN PYROTECHNICS ASSOCIATION

Generic Close Proximity Product Types:

Pyrotechnics Used Before A Proximate Audience

Purpose: **The purpose of this document is to provide generic descriptions and performance characteristics of commonly available proximate pyrotechnic devices used in the live entertainment industry.**

Applicability: **This document is applicable to pyrotechnic operators, venue managers, event producers, Authorities having Jurisdiction (AHJs) and others desiring a basic introduction to the nomenclature, description and functioning of proximate pyrotechnic devices.**

Disclaimer

The terms and nomenclature used in this document are terms commonly used in the theatrical and proximate pyrotechnic display industry and are intended to provide an overview of the general descriptions and performance characteristics of commonly available proximate pyrotechnic devices used in the live entertainment industry. This document is not intended to be all encompassing. The descriptions and performance characteristics do not apply to certain types of productions. For example, the motion picture and television productions special effects standard industry practices, where the audience is not proximate to the pyrotechnics, and nomenclature are unique, are not intended to be included in the scope of this document.

The names of the items listed herein are generic descriptions of typical products. Each manufacturer's product names are often specific to that manufacturer and may differ from the generic descriptions. This list is not intended to include all of the products used in proximate pyrotechnics but rather to define the most commonly used products. While significant effort has been made to assure the correctness of the information contained in this document, no assurances are given that the information contained herein is free of error. This document has been prepared as of March 1, 2009, and APA assumes no obligation to update this document should it become aware of changes.

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P.O. BOX 30438 ● BETHESDA, MARYLAND 20824-0438 ● PHONE (301) 907-8181 ● FAX

Introduction:

The described articles herein most often fall within the UN standard for UN0431 Articles, pyrotechnic or less frequently UN0336 consumer fireworks. However, there are many items that may match the descriptions listed here which are classified as some other UN standard number that may be used in a close proximity venue.

Labeling

Labeling conventions vary among manufacturers. All items may include the name of the manufacturer/distributor, the address of manufacturer/distributor and the trade name of the product. Specific information concerning the performance characteristics may be indicated on the label or be obtained directly from the manufacturer. For example, the typical labeling convention for gerbs is to list the duration followed by the height of effect. For example, a 1/2x15 would be a one-half second effect, 15 ft high.

Performance Characteristics

Product performance characteristics can vary based upon such variables as age of the product, the environmental conditions, discharge angle, altitude, and other factors. An on-site demonstration/test with the most similar possible show conditions is the best way to determine actual product performance within any venue.

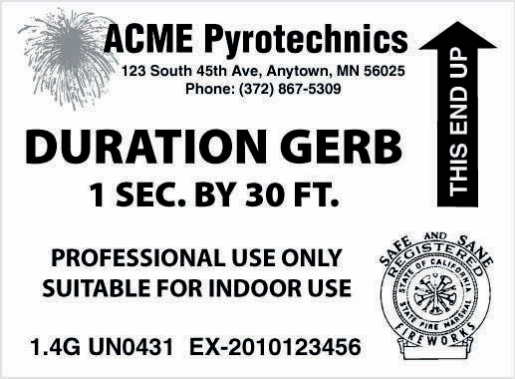
Duration

Items do not always list the duration of effects. Typically gerbs/fountains, flares, falls, wire rockets, saxons and multi-shot mine or comet items list the duration on the label. For single shot mine and comet effects the duration is dependent on several factors and not listed on the label. These factors include the pyrotechnic composition and its speed of consumption, the mass of the projectile, and the shape and size of the tube. Likewise, many items such as airburst, flash trays, spark effects, flash effects, mortar hits, etc. are instant, very short effects and will not have a duration listed on the label. Specific product performance information is available from the manufacturer or distributor.

Height

Domestic manufacturers typically list the height of each device in feet. However, many products from Europe and Asia list the height in meters. The height may be the maximum height of the device or may be the typical height of the device depending on the manufacturer. It is the responsibility of the professional end-user to know whether the heights listed on a label are performance heights or clearance heights.

EXAMPLE LABELS:



Composition/Finished Products

Most manufacturers consider specific chemicals used in the various pyrotechnic compositions proprietary. However, all manufacturers supply the users of their products with MSDS sheets, which list the specific health and safety hazards associated with the chemical compositions and the device performance. In addition, the granting of EX numbers by the USDOT and the use of UN numbering protocols certify that all compositions and finished products meet the standards acceptable for use in commerce and transportation within the US.

Device Fixtures/Hardware

A wide variety of fixtures for mounting these products exist. Although some manufacturers do provide mounting fixtures, most often the fixtures are fabricated and provided by the end user. Typical materials used are aluminum, steel, wood, tape and screws, PVC, HDPE and ABS. The object of these purpose-built fixtures is to securely mount the devices to a hard flat surface, maintain the desired firing angle, hold the device in place, and provide sufficient support for the forces encountered in the discharge of the device and/or neighboring devices. Some devices such as airbursts are designed to be free hanging and are often not discharged in a holder. Other devices such as binary concussions require a rather substantial fixture for discharge (typically a solid steel cylinder with a hole bored in the center). A few items require the use of a mortar that would be typically used in a traditional fireworks display. However, the majority of products are distributed in self-contained tubes or canisters that act as force containment and directional control for the device. This type of self-contained device only requires a solid mounting surface and a way to stabilize the device. Ultimately, it is the responsibility of the professional end-user to ensure that he/she is using proper mounting/discharging hardware.

Permits and Licenses

Permit and license requirements vary based on the location of the display. It is the responsibility of the end user to obtain, verify and provide the appropriate permits and/or licenses for the display and to provide a qualified and (if required) licensed individual for a safe and compliant display. In the United States, many states and cities require special operator and/or company licenses or certificates for the use of proximate products due to the particular performance characteristics and proximity to the audience and performers that these products entail. Some cities and states require a permit for the importation or storage of proximate products. Often display specific permits have insurance requirements, product performance information, MSDS information, detailed diagram requirements, and/or other information required to obtain the permit. Permits and licenses are not a guarantee of the suitability or safety of a display. The most accurate way to determine the proper use of pyrotechnic devices can include a demonstration of the proposed devices in the venue and under the most accurate representation of the conditions at the time of display. It is the responsibility of the on-site professional pyrotechnician to ensure the safe discharge of any pyrotechnic device.

Source: Proximate Pyrotechnics Committee, American Pyrotechnics Association
Reference: National Fire Protection Association, NFPA 1126 Standard for the Use of Pyrotechnics Before a
Proximate Audience*, 2006 Edition.*
Question & comments may be directed to:

American Pyrotechnics Association
P.O. Box 30438
Bethesda, MD 20824
(301) 907-8181

Airburst:

A pyrotechnic device designed to mimic an outdoor aerial firework shell without producing burning fallout. Unlike outdoor aerial shells, airbursts are suspended from overhead rigging and fired "in place" verses being launched from a mortar into the air. The effect is a very fast omni-directional burst of sparks that are intended to burn out before reaching the ground. They also create a popping sound that varies in loudness. This effect can either be made using binary powders or purchased pre-made from vendors.

Small, Medium, and Large Airburst

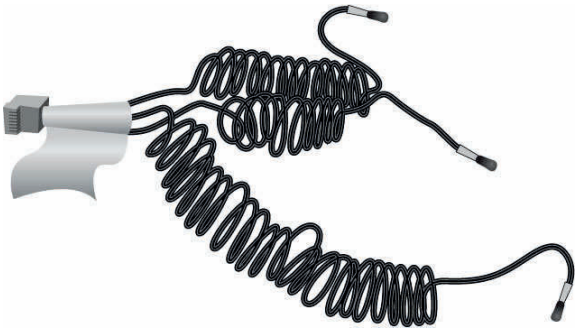
Airburst
Paper Based – Pre-Made:

These devices use flame-resistant confetti or streamers and a small pyrotechnic charge. When fired, the charge propels the confetti/ streamers in all directions.

Paper Based Airburst

Airburst Harness:

An assembly consisting of a plurality, usually three, of electric matches with leads of varying length terminating in a telephone modular type plug. Not to be confused with spreader cable, loom or wire harness to which an electric match would be attached.



Airburst Harness

AMERICAN PYROTECHNICS ASSOCIATION

Glossary of Proximate Pyrotechnic Devices with Illustrations

Binary Powder:

A two-component powder which when separate, are a flammable solid and an oxidizer. Bottles are usually labeled "A" (oxidizer) and "B" (fuel). When mixed together, they become a pyrotechnic composition.
Effects vary, including but not limited to: Airburst, Concussion, Flash, Smoke, Fast and Slow Sparkle and Sparks.

Most binaries are used in specific hardware to control their effect, such as flash pots, sparkle pots and concussion mortars. However, when used for making airburst, binary powders are usually assembled in self-consuming plastic film or flash paper capsules or bags.

Binary Powders

Loading Binary Powders into hardware

Comet:

A device containing a single pellet of self-consuming pyrotechnic composition. The comet is propelled into the air via a lifting charge producing various colors, glitter and crackle effects. Typically, proximate audience comets do not exceed 2 inches (50mm) in diameter and are self-contained devices including the effect, lift charge, mortar and igniter.

Crossette Comet, Split Comet:

A single pellet of pyrotechnic composition that has a cavity in the center of the pellet containing a small amount of bursting charge. When fired, this device functions similar to a standard comet with the addition of breaking into several smaller pieces, usually 4, forming an "X" or cross pattern at its apex. Typically, crossette comets do not exceed 1.75 inches (45mm) in diameter and are self-contained devices including the effect, lift charge, mortar and igniter.

One example of a Comet or Crossette tube

Glossary of Proximate Pyrotechnic Devices with Illustrations

Electric Match:

An Electro-Explosive Device (EED) that is used to remotely initiate other pyrotechnic devices by means of an electrical current.

Coiled Electric Match

Electric Match with safety shroud covering match head

Flame Mortar:

(Also known as Flame Projector, Flame Column, Flame ball)

This Pyrotechnic device often utilizes a smokeless powder based composition and produces a rising column or rolling ball of fire in various colors. This device produces very little smoke and minimal debris. Duration of the effect is based on the quantity of composition loaded, the particulate size of the composition, and the diameter of the tube. Typical duration does not exceed 5 seconds. This is a pyrotechnic device not to be confused with other flame effects using gaseous or liquid combustible substances. This effect can be prepackaged in a tube or can 1 inch to 4 inches (25mm to 102mm) in diameter or packaged in other types of containers. In addition, this device can be assembled on site using an appropriate mortar or containment device.

Short and Tall Flame Projector

Glossary of Proximate Pyrotechnic Devices with Illustrations

Flare:

A cylindrical tube device, which contains a pressed pyrotechnic composition. Upon ignition, the device produces a bright flame in various colors and durations. Typically stage flares range from 2” to 6” (50mm to 152mm) in length and ½” to 1” (13mm to 25mm) in diameter. Effect duration is typically from several seconds up to 60 seconds or longer.

One example of a flare

Flash Paper, Flash String, Flash Cotton:

These are different forms of nitrated cotton (cellulose nitrate, nitrocellulose). The material is stored and transported either wet with water or alcohol. These materials burn rapidly when ignited with very little smoke or ash. Uses include magician hand flashes, ignition of ice fountains and various other pyrotechnic effects.

Flash Paper

Flash Cotton

Flash String

Glossary of Proximate Pyrotechnic Devices with Illustrations

Flash Tray:

(Also known as Flash Tube*, Flash Curtain, Split Mine)

***See Flash Pot/Flash Tube description under separate heading below.**

Typically a preloaded cylindrical cardboard tube 6” to 18” (152mm to 457mm) in length with a longitudinal slit cut from end plug to the opposing end plug. Inside the tube is a pyrotechnic composition that, upon ignition, produces a fan pattern flash and or spray of sparks and/or stars.
The effect pattern produced, while wide in the side-to-side axis, is very narrow and controlled in the front to back axis. Duration of the effect is short and does not usually exceed 1.5 seconds

One example of a Flash Tray or Curtain

Flash Tubes, Pre-loaded Flash Pot:

***See note for Flash Tray above:**

A cylindrical tube, typically 2” to 4” (50mm to 102mm) long by ½” to 1” (13mm to 25mm) diameter. The device emits a bright flash and puff of smoke, sometimes with a bang and/or spray of sparks.
Note that some manufacturers interchange the terms “Flash Tube” and “Flash Tray”. It is best to refer to the specific manufacturer for device description and performance specifications.

Flash Tube

Glossary of Proximate Pyrotechnic Devices with Illustrations

Gerb:

**A pyrotechnic fountain that produces a controlled spray (plume) of sparks.
Most produce either silver or gold sparks.
Other variations include changing from gold to silver (transformation) or have a color flame in addition to the spark plume. Still others have a crackle or glittering effect.
Typical devices range in size from approximately 1/2" to 2.5" (13mm to 64mm) diameter and 2" to 8" (50mm to 204mm) long. The gerb composition is usually contained between a clay plug at the bottom and a clay nozzle (choke) at the discharge end. For special applications, color-producing salts may be added to the mix to give a contrasting flame of 6" to 18" (152.4mm to 457.2mm) height at the nozzle.
Gerb labels usually list the performance parameters with the duration in seconds listed first and height in feet or meters listed second.**

Gerb, fast

Gerb, Fast:

Gerb with duration of ¼ sec to 1 sec. Most have a non-removable electric match pre-installed from the bottom of the device.

Gerb, Duration:

Gerb with duration greater than 1 second and up to 30 seconds. Most duration gerbs have the electric match installed into the top of the device.

Gerb, Duration

Glossary of Proximate Pyrotechnic Devices with Illustrations

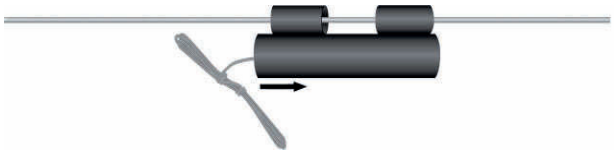
Waterfall Gerb *(also Falls, Cascades):*

A pyrotechnic fountain producing a falling plume of sparks usually arranged in a line to mimic a waterfall. Falls are typically hung from overhead rigging in an inverted (up side down) configuration. Paper tube construction, typically ¾" to 1" (19mm to 25mm) diameter, charged with a pyrotechnic composition producing silver or gold sparks.

Waterfall Gerbs suspended from pipe

Line Rocket (Grid Rocket):

A line rocket is a tube device designed to produce thrust. The device is attached to a carrier design to slide freely on a metal cable. Upon ignition, the line rocket quickly travels the length of the cable. The cable is strung taught from initiation point to termination point. The cable termination point often has a "catcher trap" to prevent the spent tube from traveling back up or down the cable. The device is initiated using an electric match and the electric match is attached in such a way as to fall free of the device upon ignition. Duration of the effect varies but is usually not longer than 5 seconds.



Line Rocket, in carrier, mounted on cable

Ice Fountain (Dream Star):

Gerb type device usually with no choke containing a pressed composition of nitrocellulose and titanium that produces a low smoke and lower height fountain effect than a conventional gerb. Typical heights are from 6" to 36" (15.3cm to 91.5cm) and durations of up to 45 seconds. Sizes range from ½" to 1" (13mm to 25mm) in diameter and 4" to 6" (102 to 153mm) long.

Ice Fountain

Igniter: See electric match

Glossary of Proximate Pyrotechnic Devices with Illustrations

Match Tape:

A type of fast-burning fuse typically used to ignite multiple pyrotechnic devices. When ignited the match tape rapidly burns with little residue, transferring fire to the connected pyrotechnic devices. Match tape is typically comprised of a trail of fine-grained powder sandwiched between 2 strips of cellophane tape, which can be adhered to multiple devices and ignited with a single electric match.

Match Tape

Mine:

A device containing multiple pellets (stars) of self-consuming pyrotechnic composition. The stars are propelled into the air via a lifting charge, producing various colors, glitter and crackle effects in an inverted cone pattern. Typically, proximate audience mines do not exceed 4 inches (102mm) in diameter and are self-contained devices including the effect, lift charge, mortar and igniter.

Mine

Mine Comet:

A self-contained device that contains both a mine and a comet effect within a single tube. The device exhibits characteristics of both items listed above.

Mine Comet

Mortar Hit (also known as Fireball Effect):

This device produces a bright flash, heavy smoke and often a rolling ball of fire. The device is sometimes designed to produce noise in conjunction with the visual effect. It is often pre-packaged in a canister or tube but can be assembled on site. Size varies depending on desired effect but typically ranges from ½" to 5" (13mm to 127mm) in diameter. Larger variants of this device are often quite energetic and should be contained or mounted in an appropriate holder. Effect duration is intended to be very short, usually less that 1 second.

Mortar Hit

Glossary of Proximate Pyrotechnic Devices with Illustrations

Multi-Shot Devices, Timed:

A multiple shot device designed to produce a succession of effects. Each tube is typically .6" to 1.38" (15mm to 35mm) in diameter. A single igniter initiates the first effect, with subsequent effects being ignited by the time fuse. The number of tubes, tube spacing and speed of the time fuse used determine the overall duration of the device. The type of effects typically used can be comets, mines, small aerial devices, crossette comets, audible effects or any combination of effects. Often multiple igniters may be used to alter the overall duration of the device.

Multi Shot Device, Timed

Multi Shot Device, Timed

Multi-Shot Devices, Instantaneous:

A multiple shot device designed to produce a barrage of effects. The device specifications are similar to multi-shot devices, timed, except all devices fire simultaneously.

Multi Shot Device, Instantaneous

Glossary of Proximate Pyrotechnic Devices with Illustrations

Pyrotechnic Smoke Effects:

Smoke Cartridge
A pre-packaged device that uses pyrotechnic material to create a plume of white or colored smoke. Duration and output will vary greatly depending on device used.

One example of a smoke cartridge

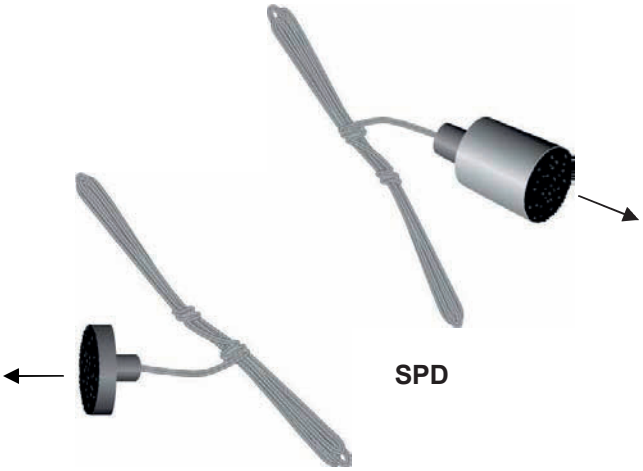
Smoke Cookie™
A compressed disc of pyrotechnic composition that produces a cloud of white or colored smoke upon ignition.

Smoke Cookie ™

Robotics or "Spark" Effects*:*

(Also know as SPD/DSC™):

Also known as Bullet Hits, Spark Hits or Spark Producing Devices.
A pyrotechnic device, which simulates a short circuit in an electrical panel.
These devices produce a spray of sparks that can vary in size from about 2 feet to 10 feet (.61m to 3m) in diameter and 6 inches to 15 feet (.15m to 4.6m) in height.
Such devices are not to be confused with bullet hits used in a motion picture or television production, which are intended to create the illusion of a bullet striking a costume, prop or scenery and function by exploding.



SPD

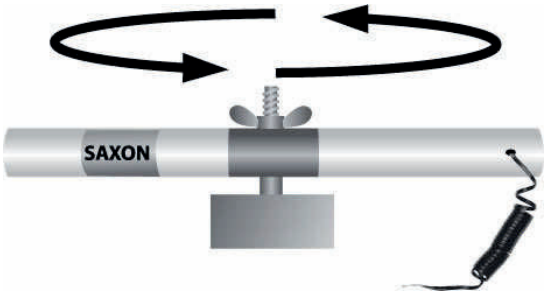
Robotic

Glossary of Proximate Pyrotechnic Devices with Illustrations

Saxon

(Also known as Pinwheel)

A device that produces a revolving shower of sparks spinning around a fixed axis. Device is usually mounted to a stand or holder with an axle or shaft with a keeper or pin to lock the device to the shaft. The device may spin in any plane from the vertical to horizontal. The device often consists of 2 'gerb' type devices joined end to end, typically with a spacer between the devices and a hole for the axle or shaft mounting. Alternate configurations include gerb devices set at angles to the rotation point and attached to a wheel causing the wheel to rotate. The wheel has a collar in the center to accommodate the axle or shaft for mounting. Gerbs may have colored flame tips that create a band of color within the spray of sparks. Duration of the effect is usually between 15 and 30 seconds.



Saxon mounted on fixture

Shock Tubing:

A hollow, flexible thermoplastic tube usually .12" (3mm) in outer diameter. When shock tube is initiated, light (flame), and a pressure wave travel along the length of the tube at very high speed. The pressure wave creates a loud noise at the terminal end of the tube. The use of shock tube in entertainment pyrotechnics is limited usually to the visual simulation of a lightning strike.

Shock Tubing

Shock Tube Igniter

Shock Tube w/ Igniter attached

Shock Tube Initiator:

A type of igniter that is more energetic than a conventional electric match used to initiate shock tubing. Other types of shock tube initiators include shot-shell primers and plasma spark generators.

Strobe Pot/Flicker Flare:

Pre-packaged tube device that produces multiple flashes at the output end of the tube in various colors.

Strobe Pot / Flicker