

# Minnesota State Department of Public Safety



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## State Fire Marshal Division

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### FIREWORKS FACT SHEET

**This fact sheet now includes changes to the fireworks laws made by the Minnesota Legislature in both 2002 and 2003**

#### SECTION 1 - INTRODUCTION

This fire safety sheet is based upon Minnesota Statute 624.20, which allows for the public sale, possession and use of a limited number of, but not all, consumer fireworks. Its purpose is to provide uniform application of the 2007 Minnesota State Fire Code (MSFC) and Minnesota Statute provisions.

More information is available from the State Fire Marshal Division by calling 651-201-7200. E-mail questions to [firecode@state.mn.us](mailto:firecode@state.mn.us) or visit our web page at [www.fire.state.mn.us](http://www.fire.state.mn.us) for the latest information on fire in Minnesota.

#### SECTION 2 – SUMMARY OF CHANGES TO MINNESOTA FIREWORKS LAWS EFFECTIVE APRIL 30, 2002

##### 2.1 Legal and Illegal Fireworks within Minnesota

The sale, possession and use of some non-explosive and non-aerial consumer fireworks are **now permitted** in Minnesota effective April 30, 2002. Examples of items that are now permitted include sparklers, cones and tubes that emit sparks, novelty items like snakes, and party poppers. Please review the list of examples of legal and illegal fireworks.

These consumer fireworks may not be used on public property (i.e. parks, roads, alleys, schools, government property, etc.). Purchasers of these fireworks must be at least eighteen (18) years of age and retailers need to check photo identification. The sale, possession or use may occur throughout the year.

Explosive and aerial fireworks are still prohibited for public sale, possession and use in the State of Minnesota. Prohibited fireworks include, but are not limited to, firecrackers, bottle rockets, missiles, roman candles, mortars and shells.

## **2.2 Banned Fireworks by Federal Regulations (CFR; Part 1500.17)**

In addition, the United States Consumer Products Safety Commission (CPSC) has established a summary of banned fireworks within the United States. This list can be found within Code of Federal Regulations (CFR) Section 1500.17. 16 CFR 1500.17 (a)(8) limits firecrackers and other ground devices to 50 mg. of pyrotechnic composition (powder) designed to produce an audible effect. Firecrackers that exceed this limit, including but not limited to, illegal devices such as 'cherry bombs', 'M-80's', 'silver salutes', and other large firecrackers are banned. Kits and components intended to produce any banned device violates the federal regulations.

16 CFR 1500.17 (a)(3) limits aerial fireworks devices to 130 mg (2 grains) of pyrotechnic composition intended to produce an audible effect. Aerial devices, which are devices that are launched into the air then function, that have an audible effect larger than 130mg are banned fireworks devices. Once again, kits and components intended to produce any banned aerial device also violates federal regulations.

### Other federal guidelines under Title 16, Part 1507 of the CFR:

1. Fuses must resist side ignition and must burn for at least 3 but not more than 9 seconds;
2. The fuse must support twice the weight of the device to which it is attached or the weight plus eight (8) ounces, whichever is less;
3. The shortest dimension of the base of a fireworks device that stands upright must be at least 1/3 of the overall height of device or must pass a 12 degree tilt test;
4. Devices must be sealed to prevent leakage of pyrotechnic material at any time;
5. Devices must not exhibit burnout or blowout;
6. Handles and spikes must be securely attached. Handles must be at least four (4) inches long, and spikes must be at least two (2) inches long and have a blunt tip;
7. Wheels must have drivers securely attached;
8. Toy smoke devices must not burst or produce excessive external flame during operation;
9. Rockets must have sticks which are straight, rigid, and which remain securely attached;
10. Party poppers must not have more than 0.25 grains of pyrotechnic composition, nor have paper or plastic inserts which ignite during operation;
11. Fireworks must not contain the following chemicals: arsenic sulfide, arsenates, arsenites, boron, chlorates, gallates, gallic, acid, magnesium, mercury salts, phosphorous, picrates, picric acid, thiocyanates, titanium, or zirconium (See 16 CFR § 1507.2 for exceptions);
12. Large multiple-tube mine and shell devices with any tube measuring 1.5 inches or more in inside diameter must not have a minimum tip angle of less than 60 degrees.

Additionally, some fireworks are banned if they look like candy, food, or other banned fireworks devices. Dragon eggs which look like foil wrapped chocolate candy kisses, cracker balls which look like breakfast cereal, and smoke devices like cherry bombs or “M-80’s” are banned fireworks devices.

### **2.3 Labeling Requirements for Consumer Fireworks**

Cautionary labeling warns consumers of the potential dangers associated with fireworks and tells them guidelines for use. Consumer Product Safety Commission (CPSC) Title 16 Code of Federal Regulations (CFR) Parts 1500.14 and 1500.83(a)(27) outline the federal guidelines that are required on consumer fireworks.

#### 1. Every fireworks device must have:

- A label with a signal word, either WARNING or CAUTION;
- A statement describing the hazard(s) associated with the device, such as ‘SHOOTS FLAMING BALLS’ or ‘EMITS SHOWERS OF SPARKS’;
- Information describing the actions to be followed or avoided in order to store, handle and use the device safely.

#### 2. 16 CFR §1500.14(b)(7) includes specific text for the labels of fountains, California Candles, spike and handle fountains, sparklers, party poppers, etc.

- The signal word and statement of hazard for every label must appear on the principal display panel, usually the front panel of the fireworks device.
- This information must be displayed in a prominent and obvious manner.

### **2.4 Minnesota Department of Labor and Industry Rules**

Minnesota Rule 5200.0910(b) states: No minor under the age of 18 shall be employed in or about any place where explosives or pyrotechnics are manufactured, stored, handled or fired.

## **SECTION 3 – Public Display Fireworks**

### **3.1 Public Display Requirements**

The requirements outlined for “public” outdoor display fireworks remain unchanged. However, an amendment to Minnesota Statute 624.22 in the 2003 Legislative session now requires all indoor fireworks displays to receive a permit from the Minnesota State Fire Marshal Division, effective May 28, 2003. For further information please review our web site for the fireworks operator display certification requirements.

## **SECTION 4 – SUMMARY OF CHANGES MADE EFFECTIVE MAY 28, 2003 RELATING TO LOCAL LICENSE FEES AND RETAIL STANDS FOR CONSUMER FIREWORKS SALES**

### **4.1 NFPA 1124 (2003 Edition)**

Effective May 28, 2003, Minnesota Statute 624.20 (re-printed below) was amended to include wording that limits the license fees that local jurisdictions can charge for

fireworks sales, and that local jurisdictions cannot prohibit a retail stand that complies with National Fire Protection Association (NFPA) Standard 1124 (2003 Edition). However, if a local jurisdiction has an ordinance prohibiting transient sales of ANY item (fruits, vegetables, apparel, fireworks, etc.), this must be complied with. Local jurisdictions are not allowed to adopt ordinances that are more restrictive than NFPA 1124 (03) in accordance with Minnesota law.

## **SECTION 5 – FREQUENTLY ASKED QUESTIONS ON ENFORCEMENT OF THE MSFC AS IT RELATES TO FIREWORKS**

### **5.1 Frequently Asked Questions**

Although a new law changes the definition of fireworks in Minn. Stat 624.20(c), it does nothing to change enforcement of the Minnesota State Fire Code (MSFC) as it relates to these legal consumer fireworks. As a service to the Minnesota Fire Service and the general public, the State Fire Marshal Division has assembled this list of frequently asked questions relating to fireworks and the MSFC. This analysis was done in response to a request by the Minnesota State Fire Chief's Association.

#### **Question 1 – Are local jurisdictions allowed to adopt requirements that exceed the fire code as it relates to fireworks?**

**Answer to question 1** – No, due to the amendment to Minnesota Statute 624.20 in the 2003 legislative session, local jurisdictions must accept a retail stand that can prove they comply with National Fire Protection Association Standard 1124 (2003 Edition).

**Reference for question 1:** Minnesota Statute 624.20:

This is contained in SF905 (Regular Session Bills), beginning on line 374.1

Sec. 6. Minnesota Statutes 2002, section 624.20, subdivision 1, is amended to read: Subdivision 1. (a) As used in sections 624.20 to 624.25, the term "fireworks" means any substance or combination of substances or article prepared for the purpose of producing a visible or an audible effect by combustion, explosion, deflagration, or detonation, and includes blank cartridges, toy cannons, and toy canes in which explosives are used, the type of balloons which require fire underneath to propel them, firecrackers, torpedoes, skyrockets, Roman candles, daygo bombs, sparklers other than those specified in paragraph (c), or other fireworks of like construction, and any fireworks containing any explosive or inflammable compound, or any tablets or other device containing any explosive substance and commonly used as fireworks. (b) The term "fireworks" shall not include toy pistols, toy guns, in which paper caps containing 25/100 grains or less of explosive compound are used and toy pistol caps which contain less than 20/100 grains of explosive mixture. (c) The term also does not include wire or wood sparklers of not more than 100 grams of mixture per item, other sparkling items which are nonexplosive and nonaerial and contain 75 grams or less of

chemical mixture per tube or a total of 500 grams or less for multiple tubes, snakes and glow worms, smoke devices, or trick noisemakers which include paper streamers, party poppers, string poppers, snappers, and drop pops, each consisting of not more than twenty-five hundredths grains of explosive mixture. The use of items listed in this paragraph is not permitted on public property. This paragraph does not authorize the purchase of items listed in it by persons younger than 18 years of age. The age of a purchaser of items listed in this paragraph must be verified by photographic identification. (d) A local unit of government may impose an annual license fee for the retail sale of items authorized under paragraph (c). The annual license fee of each retail seller that is in the business of selling only the items authorized under paragraph (c) may not exceed \$350 and the annual license of each other retail seller may not exceed \$100. A local unit of government may not: (1) impose any fee or charge, other than the fee authorized by this paragraph, on the retail sale of items authorized under paragraph (c); (2) prohibit or restrict the display of items for permanent or temporary retail sale authorized under paragraph (c) that comply with National Fire Protection Association Standard 1124 (2003 edition); or (3) impose on a retail seller any financial guarantee requirements, including bonding or insurance provisions, containing restrictions or conditions not imposed on the same basis on all other business licensees. [EFFECTIVE DATE.] This section is effective the day following final enactment.

**Question 2 – Can local jurisdictions require a permit for fireworks retail sale or storage, just as they do for hazardous materials or high piled storage?**

**Answer to question 2 –** Yes. The MSFC and Minnesota Statute currently allows for permits to be obtained for retail firework sales. Minnesota Statute 624.20 sets the maximum permit charge for retail stands selling only fireworks to be capped at \$350/year. For other retailers (i.e. Target, Wal-Mart, gas stations, etc.) that sell retail fireworks, the maximum permit fee is capped at \$100.

**Reference for question 2:** Minnesota Statute 624.20

**Question 3 – Can a code official require additional fire protection systems in addition to what is required by NFPA 1124 (03) in retail sales occupancies?**

**Answer to question 3:** No, the way Minnesota law currently reads in state statute, local jurisdictions must accept a retail stand that can prove they comply with the requirements outlined in NFPA 1124 (2003 Edition).

**Reference for question 3:** Minnesota Statute 624.20

**Question 4 – Can a code official limit smoking in retail sales buildings, warehouses or tents containing fireworks?**

**Answer to question 4:** Yes. No smoking shall be conducted within 50 feet of the consumer fireworks retail area.

**Reference for question 4:** NFPA 1124 (03) Section 7.6.5.1

**Questions 5 – Can a code official prevent fireworks from being sold in tents or road side stands?**

**Answer to question 5:** Yes. If a city has a local ordinance in place prohibiting transient sales, the local regulation can prohibit a road side stand or tent within their jurisdiction. Bear in mind, the local ordinance must ban ALL transient sales of any item, not just limit it to fireworks. However, NFPA 1124 does not prohibit tents or roadside stands. A code official cannot deny a permit to an applicant as long as they can prove they comply with NFPA 1124 (03). However, they must comply with **all** of the requirements within NFPA 1124 (03) for temporary stands.

**Reference for question 5:** NFPA 1124 (03) Section 7.7.2

**Question 6 – Does Chapter 33 (Explosives and Fireworks) of the MSFC apply to the manufacture, storage and transportation of fireworks?**

**Answer to question 6:** Yes, Chapter 33 (Explosives and Fireworks) of the MSFC applies to possession, manufacture, storage, handling, sale and use of explosives, explosive materials, display fireworks and small arms ammunition. There are some exceptions listed under MSFC (03) Section 3301.1, so please read carefully.

**Reference for question 6:** MSFC (03) 3301.1.

**Questions 7 – Does the MSFC consider fireworks to be flammable solids and subject them to the requirements for H occupancies when storing above the 125-pound limit in Chapter 27?**

**Answer to question 7:** No. Although this may appear to be a possible enforcement option, the definitions in the MSFC for flammable solid do not support such a determination. Also, the examples found in Appendix E, make no mention of fireworks being a flammable solid. In summary, the State Fire Marshal does not recommend using this reference in relation to consumer fireworks.

**Reference for question 7:**

**MSFC Definitions - FLAMMABLE SOLID-** A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which has an ignition temperature below 212°F (100°C) or which

burns so vigorously and persistently when ignited as to create a serious hazard. A chemical shall be considered a flammable solid as determined in accordance with the test method of CPSC 16 CFR; Part 1500.44, if it ignites and burns with a self-sustained flame a greater than 0.1 inch (2.5mm) per second along its major axis.

## **Appendix E**

### **E102.1.4 Flammable solids.** Examples Include:

1. Organic solids. Examples: camphor, cellulose nitrate and naphthalene.
2. Inorganic solids. Examples: decaborane, lithium amide, phosphorous heptasulfide, phosphorous sesquisulfide, potassium sulfide, anhydrous sodium sulfide and sulfur.
3. Combustible metals (except dusts and powders). Examples: cesium, magnesium and zirconium.
4. Combustible dusts and powders (including metals). Examples: wood sawdust, plastics, coal, flour and powdered metals (few exceptions).
5. Combustible fibers.

### **Question 8 – Is the chief allowed to prohibit the use of fireworks in hazardous fire areas?**

**Answer to question 8:** Yes. The code official is authorized to prohibit the discharge of fireworks within 300 feet from a consumer fireworks retail stand.

**Reference for question 8:** NFPA 1124 (03) Section 7.6.4