Title 157 - STATE FIRE MARSHAL

Chapter 3 - DISPLAY & NON-PERMISSIBLE FIREWORKS--LIMITATIONS

001. This chapter establishes guidelines and procedures to facilitate proper administration of certain statutory exceptions to unlawful acts with nonpermissible fireworks.

002. As a general rule, it shall be unlawful for any person to possess, sell, offer for sale, bring into this state, or discharge any fireworks other than permissible fireworks. Exceptions to this provision are found in N.R.S. § 28-1245 (1995 Reissue) and guidelines to those exceptions are provided in the remainder of this chapter.

003. Any display fireworks to be used for purposes of public exhibitions or displays and purchased from a licensed distributor will not be subject to penalties as prescribed by N.R.S. § 28-1244 (1995-Reissue). The following procedures shall be complied with by all persons intending to use this exception.

003.01. Display permits shall be obtained by any person or organization intending to publicly exhibit or display fireworks.

003.01A. Display permit application forms may be obtained only from the State Fire Marshal's office, and must be accompanied by a fee of ten dollars ($10.00).

003.01B. All display permit application forms must be completed in their entirety and submitted at least ten (10) business days prior to the proposed display date. Any application submitted less than ten (10) business days before the proposed display date may be denied.

003.01C. Incomplete application forms shall not be approved and will be returned to the applicant for completion.

003.01D. Copies of the approved application form will be sent to the distributor of the fireworks, the person in charge of the display and one copy will be filed in the State Fire Marshal's Office.

003.01E. Display permit applications may be denied when any portion of the completed application form is not in compliance with Nebraska statutes or these rules and regulations.

003.02. There shall be no sale or delivery of fireworks to a display permit applicant until the applicant is in possession of and displays a copy of an approved display permit. Sales of display fireworks to persons without a valid display permit shall be subject to the provisions of the *Explosives Control Act*, N.R.S. § 28-1213 to 28-1239, and may result in revocation of a distributor's license.

003.03. Display permit application forms shall include the following:

003.03A. The name, address, and telephone number of the organization sponsoring the display and the name[s] of the licensed public display operator actually in charge of firing the display**.**

003.03B. The date and time at which the display is to be held.

003.03C. The exact location planned for the display.

003.03D. The number and kinds of fireworks to be displayed.

003.03E. The manner and place of storage of such fireworks prior to display.

003.03F. The name, address, and Nebraska license number of the distributor from whom the fireworks will be obtained.

003.03G. The signature of the individual(s) in charge and of the local fire chief or his or her authorized representative. Also, the name, license number, and signature of the licensed public display operator who will be present and supervising the display show

003.04. All fireworks to be used for the purpose of public exhibitions or displays shall be obtained only from a licensed distributor.

003.04A. The term "licensed distributor" is defined in Chapter 1 - .013. Procedures to be followed to obtain a distributor's license are set out in Chapter 4 of these regulations.

003.05. The following procedures and practices are to be carried out by all holders of display permits in order to assure reasonable safety to the operator of public displays as well as to the general public.

003.05A. These rules and regulations shall not apply to the manufacture, transportation, or storage of display fireworks prior to reaching the display permit holder.

003.05B. Shells shall be classified and described only in terms of the inside diameter of the mortar in which they can be safely used [e.g., 3 in. (76 mm.) shells are only for use in 3 in. (76 mm.) mortars]. No shell shall be larger than six inches (6") in diameter when used for a public exhibition or display unless the shell is electrically ignited.

003.05C. Shells shall be constructed so that the difference between the inside diameter of the mortar and the outside diameter of the shell is no less than 1/8 in. (3.2 mm.) and no more than 1/4 in. (6.4 mm) for 2 in. (51 mm.) and 3 in. (76 mm.) shells or ½ in. (12.7 mm.) for shells larger than 3 in. (76 mm.).

003.05D. Shells shall be labeled with the type of shell, the diameter measurement, and the name of the manufacturer or distributor. Shells shall also carry a warning label alerting any potential finder of the shell's dangerous nature.

003.05E. The length of the internal delay fuse and the amount of lift charge shall be sized to ensure proper functioning of the shells in their mortars. Quick match fuse shall be long enough to allow not less than 6 in. (152 mm.) of fuse to protrude from the mortar after the shell has been properly inserted.

003.05F. The length of exposed black match on a shell shall not be less than 3 in. (76 mm.) 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 shall not be less than four (4) seconds to allow the operator to retreat safely.

003.05G. A safety cap shall be installed over the exposed end of the fuse. The safety cap shall be of a different color than that used for the paper of the fuse.

003.05H. All fireworks shall be stored and transported according to the requirements of NFPA 1124, Code for the Manufacture, Transportation, and Storage of Fireworks.

003.05I. As soon as the fireworks have been delivered to the display site, they shall not be left unattended nor shall they be allowed to become wet.

003.05J. All shells shall be inspected upon delivery to the display site by the display operators. Any shells having tears, leaks, broken fuses, or showing signs of having been wet shall be set aside and shall not be fired. After the display, any such shells shall either be returned to the supplier or be destroyed according to the supplier's instructions.

003.05K. All shells shall be separated according to diameter and stored in tightly covered containers of metal, wood or plastic, or, in fiber drums or corrugated cardboard cartons meeting U.S. Department of Transportation specifications for transportation of fireworks. A flame-resistant tarpaulin meeting the requirements of NFPA 701, Standard Methods of Fire Tests for Flame-Resistant Textiles and Films, shall be permitted to be used as a covering over the containers, if additional protection is desired.

003.05L. The shell storage area shall be located at a minimum distance of not less than 25 feet from the discharge site. The State Fire Marshal or local fire chief may approve a reasonable alternative to this requirement.

003.05M. During the display, shells shall be stored upwind from the discharge site.

003.06. Mortars shall be inspected for dents, bent ends, and cracked or broken plugs prior to ground placement. Mortars found to be defective in any way shall not be used. Any scale on the inside surface of the mortars shall be removed.

003.06A. Mortars shall be positioned so that the shells are carried away from spectators and into a clear area.

003.06B. Mortars shall be either buried securely into the ground to a depth of 2/3 to 3/4 of their length or fastened securely in mortar boxes or drums. In soft ground, heavy timber [e.g., 4 in. (102 mm.) thick] or rock slabs shall be placed beneath the mortars to prevent their sinking or being driven into the ground during firing. An exception to this is made for boxed finales and finale racks.

003.06C. In damp ground, a weather-resistant bag shall be placed under the bottom of the mortar prior to placement in the ground to protect the mortar against moisture.

003.06D. Weather-resistant bags shall be placed over the open end of the mortar in damp weather to keep moisture from accumulating on the inside surface of the mortar.

003.06E. Sand bags, dirt boxes or other suitable protection shall be

placed around the mortars to protect the operator from ground bursts. This requirement shall not apply to the down-range side of the discharge site.

003.06F. Mortars shall be inspected before the first shells are loaded to be certain that no water or debris has accumulated in the bottom of the mortar.

003.06G. Mortar size shall be stated as the measurement of the inside diameter. Mortars shall be constructed of steel, HDPE plastic, heavy gauge sheet metal, spiral, or convolute wound kraft paper tubes or fiber reinforced plastic. All mortar material shall be of sufficient thickness and strength to withstand the forces generated by the lift charges. Mortars larger than 12 inches in diameter shall be constructed of steel with a steel bottom plate, HDPE plastic with adequate cross-bolting or equivalent, or fiber reinforced plastic with an adequately plugged bottom so as to withstand the forces produced by the lift charge. Paper mortars shall be inspected before each display show to insure they have not been weakened by loose and unwinding layers. A cooling period shall be allowed between firing and reloading paper mortars. Sheet metal mortars shall be limited to 3 inch diameter or smaller and shall be used for single shot, single break shells in finales or barrages only. The seam shall be placed at 90 degrees to the right or left of the Operator.

003.06H. Paper mortars shall be constructed of convolute wound paper, except that spiral wound paper shall be permitted for 3 in. (76 mm.) diameter mortars only. Wall thickness of paper mortars shall conform to Table I.

TABLE I WALL THICKNESS OF PAPER MORTARS

Mortar Type	Mortar Diameter, in.	(mm)	Wall Thickness, in.	(mm)
Convolute	2 in.	(51)	1/4 in.	(6.4)
Convolute or Spiral	3 in.	(76)	3/8 in.	(9.5)
Convolute	4 in.	(102)	½ in.	(12.7)
Convolute	5 in.	(127)	3/4 in.	(19.0)
Convolute	6 in.	(152)	3/4 in.	(19.0)

EXCEPTION: For 3 in. (76 mm) single-fire mortars, such as used in finales, a wall thickness of 1/4 in. (6.4 mm) shall be permitted.

003.06I. A cleaning tool shall be provided for cleaning debris out of the mortars between firings. An acceptable tool is shown in Figure I.

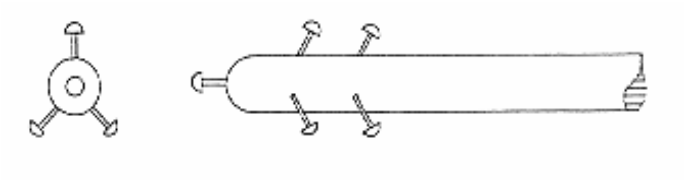

Figure I. A Mortar Cleaning Tool made from a Broom Handle.

003.07. The following are minimum clearances which must be met when selecting a discharge site.

003.07A. The trajectory of aerial shells shall not come within 25 feet (25') of any overhead object.

003.07B. Ground display pieces shall be located at a minimum distance of 75 feet (75') from spectator viewing areas and parking areas. For movable ground pieces, such as wheels, this minimum distance shall be increased to 175 feet (175').

003.07C. Mortars shall be separated from spectator viewing areas and parking areas, from health care and penal facilities, from storage of hazardous materials, and from residential occupancies by the minimum distances specified in Table II.

TABLE II MORTAR SEPARATION DISTANCES

Mortar Sizes	Spectator Viewing Areas Parking Areas 1 & 2 Family Dwellings (1)	Health Care & Penal Facilities (1)	Storage of Hazardous Materials (2)
2 in.	140 ft.	500 ft.	500 ft.
3 in.	210 ft.	500 ft.	500 ft.
4 in.	280 ft.	560 ft.	560 ft.
5 in.	350 ft.	700 ft.	700 ft.
6 in.	420 ft.	840 ft.	840 ft.
7 in.	490 ft.	980 ft.	980 ft.
8 in.	560 ft.	1,120 ft.	1,120 ft.
10 in.	700 ft.	1,400 ft.	1,400 ft.
12 in.	840 ft.	1,680 ft.	1,680 ft.

NOTE 1: As defined in NFPA 101®, Life Safety Code.®
NOTE 2: See the following for aid in determining whether materials are to be

considered hazardous. NFPA 325M, Fire Hazard Properties of Flammable Liquids, Gases and Volatile Solids., NFPA 49, Hazardous Chemicals Data.

003.07D. Fireworks shall not be discharged within 100 ft. (100') of any tent or canvas shelter.

003.07E. The potential landing area shall be a large, clear, open area.

003.07F. Spectators, vehicles or any readily combustible materials shall not be located within the potential landing area during the display.

003.08. The sponsor of the display shall provide adequate fire protection for the display

003.08A. Monitors whose sole duty shall be the enforcement of crowd control shall be located around the display area by the sponsor.

003.08B. Monitors shall be located around the discharge site to prevent spectators or any other unauthorized persons from entering the discharge site. The discharge site shall be so restricted throughout the display. Where practical, fences and rope barriers shall be used to aid in crowd control.

003.08C. If lack of crowd control should pose a danger, the display shall be immediately discontinued until the situation is corrected.

003.08D. If, at any time, high winds or unusually wet weather prevail, the public display shall be postponed until weather conditions improve to an acceptable level.

003.08E. Light snow or mist need not cause cancellation of the display; however, all materials used in the display shall be protected from the weather by suitable means until immediately prior to use.

003.08F. Display operators and assistants shall use only flashlights or electric lighting for artificial illumination.

003.08G. No smoking or open flames shall be allowed in the shell storage area as long as shells are present. Signs to this effect shall be conspicuously posted.

003.09. Shells shall be carried from the storage area to the discharge site only by their bodies; never by their fuses. ***EXCEPTION***: As specified in 003.09B.

003.09A. Shells shall be checked for proper fit in their mortars prior to the display.

003.09B. When loaded into the mortars, shells shall be held by the thick portion of their fuses and carefully lowered into the mortar. At no time shall the operator place any part of his or her body over the throat of the mortar.

003.09C. The operator shall be certain that the shell is properly seated in the mortar.

003.09D. Shells shall not, under any circumstances, be forced into a mortar too small to accept them. Shells that do not fit properly into the mortars shall not be fired; they shall be disposed of according to the procedure described in 003.09G.

003.09E. Shells shall be ignited by lighting the tip of the fuse with a fuse, torch, portfire or similar device. The operator shall never place any part of his or her body over the mortar at any time. As soon as the fuse is ignited, the operator shall retreat from the mortar area (unless electrical ignition is used).

> 003.09E1. The safety cap protecting the fuse shall not be removed by the operator responsible for igniting the fuse until immediately before the shell is to be fired (unless electrical ignition is used).

003.09F. The first shell fired shall be carefully observed to determine that its trajectory will carry it into the intended firing range and that the shell functions over, and any debris falls into, the potential landing area.

> 003.09F1. The mortars shall be adjusted or re-angled if necessary at any time during the display.

003.09G. In the event of a shell failing to ignite in the mortar, the mortar shall be left alone for a minimum of five (5) minutes, then carefully flooded with water. Immediately following the display, the mortar shall be emptied into a bucket of water. The supplier shall be contacted as soon as possible for proper disposal instructions.

003.09H. Operators shall never attempt to repair a damaged shell nor shall they attempt to dismantle a dry shell. In all such cases, the supplier shall be contacted as soon as possible for proper disposal instructions.

003.09I. Operators shall never dry a wet shell, lance or pot for reuse. In

such cases, the shell, lance or pot shall be handled according to the procedure in 003.09G.

003.09J. The entire firing range shall be inspected immediately following the display for the purpose of locating any defective shells. Any shells found shall be immediately doused with water before handling. The shells shall then be placed in a bucket of water. The supplier shall then be contacted as soon as possible for proper disposal instructions.

003.09J1. When fireworks are displayed at night, the sponsor shall ensure that the firing range is inspected early the following morning.

003.09J2. The operator of the display shall keep a record, on a form provided by the supplier, of all shells that fail to ignite or fail to function. The form shall be completed and returned to the supplier.

003.10. All ground pieces shall be positioned out of the firing range of aerial displays. Mortars shall be positioned so that they do not fire towards any ground pieces.

003.10A. No dry grass or combustible material shall be located beneath ground pieces. If dry, the area shall be thoroughly wet down before the display.

003.10B. Poles for ground pieces shall be securely placed and firmly braced so that they will not fall over when they function.

003.10C. Specific instructions from the supplier shall accompany all ground pieces. A list of required accessories shall also be supplied.

003.11. An adequate number of operators, assistants, and monitors shall be on hand to conduct the display. At least one public display operator licensed by the State Fire Marshal shall supervise all displays.

003.11A. No person shall handle or be involved in the firing of fireworks while under the influence of alcohol, narcotics, or drugs which could adversely affect judgment, movements or stability.

003.11B. Applications for the Fireworks Display Operator's examination are available from the State Fire Marshal's Office located at 246 South 14th Street, Lincoln, NE 68508 (402) 471-2027. Please call for exam times and locations. Applicants shall submit their completed applications to the State Fire Marshal's Office in Lincoln at least five (5) business days prior to the examination date.

Applicants shall be required to successfully pass a multiple choice/ true-false examination concerning the laws, fireworks display regulations of Title 157, Chapter 3, and the safety practices of the State Fire Marshal.~~, or otherwise demonstrate proficiency by successfully completing an examination or skills test through the two national pyrotechnics organizations recognized by the State Fire Marshal. These two organizations are the Pyrotechnics Guild International, Inc. ("P.G.I.") and the American Pyrotechnics Association ("A.P.A."). To receive a Nebraska Display Operator's License without taking the exam, an Applicant is required to provide written proof or certification that he or she has a valid display operator's license on the date the application is submitted, through either the P.G.I. or the A.P.A.~~ Licenses from other states WILL NOT be accepted.

003.11B1. Completed applications shall include the names and addresses of at least three persons as reference who are not relatives and who can attest to the applicant's experience, integrity, and training.

003.11B2. Any applicant who fails the examination may reapply to take the next examination. However, if the applicant fails a second examination, he or she will be required to wait six (6) months from the date of the first unsuccessful exam.

003.11B3. Public display operator licenses will be valid for a period of three years. This subsection will not prohibit the revocation of a permit for just cause where a fire nuisance exists or where personal injury may occur. The State Fire Marshal may require a reexamination of any licensee.

003.11B4. An applicant for a display operator's license must be at least 18 years old on the date of the examination.

004. Penalty provisions of *Neb. Rev. Stat.* § 28-1244 (Reissue 1995) do not apply to licensed distributors who bring non-permissible fireworks into the state solely for storage and are held for resale outside of the state.

004.01. This exception applies only when the person bringing non-permissible fireworks into the state is a licensed distributor.

004.02. All such fireworks must be handled and stored in accordance with NFPA 1124, *Code for the Manufacture, Transportation, and Storage of Fireworks*, as adopted by the State Fire Marshal.

005. Penalty provisions of *Neb. Rev. Stat.* § 28-1244 (Reissue 1995) shall not apply to fireworks used for agricultural purposes when such fireworks are obtained from a licensed distributor with written authorization from the State Fire Marshal.

005.01. Such written authorization must be from the State Fire Marshal to any holder of a distributor's license.

006. Penalty provisions of *Neb. Rev. Stat.* § 28-1244 (Reissue 1995) shall not apply to toy cap pistols or toy caps when such caps do not contain more than twenty-five hundredths of a grain of explosive material.

Legal Citation: Title 157, Ch. 3, Nebraska State Fire Marshal.