

Sponsor or Company Name: _____
Address: _____
Contact Person: _____ Phone: _____
Display Location: _____ Event: _____
Display Date: _____ Start Time _____ End Time _____
Primary Pyrotechnist/Agent or Contractor: _____ DOB: _____
Address: _____ City: _____ State: _____ Zip: _____
Contact Person: _____ Phone: _____ Local Phone: _____
Local Address: _____ City: _____ State: _____ Zip: _____

The following information is required before a plan review can be completed and a Fire Safety Permit issued:

PERMIT REQUIREMENTS:

UFC-NJ Permit application completed and submitted 15 days before scheduled display. *N.J.A.C. 5:70-3.(a)31.F-3101.0.*
Copy of Municipal Approval (if applicable). *N.J.A.C. 5:70-3.2(a)31. F-3103.3*
Plan Review/Inspection Fee Paid. \$ **331.00** YES NO Type III Permit. *N.J.A.C. 5:70-2.7(b)5.iii.*

SITE PLANS:

Scaled site plan, showing general area, storage area, specific firing location, discharge area, fallout area, spectator area, and fire apparatus access with distances to property line, buildings, vehicle roadways, parking areas, viewing areas, utilities, closest alarm transmitting device or telephone, etc. *N.J.A.C. 5:708-3.2(a) 31. F-33103.3.1.*
Plan showing transportation route of fireworks. *NFPA 1124-95-5-4.2*

PROCEDURES AND FORMS

Copy of Site Plan with written fire and emergency procedures for fireworks emergencies.
Copy of Security Plan for safe transportation, storage, removal and disposal of devices and equipment.
Copies of written documentation of training and/or certification for pyrotechnic operator and assistants.
Copies of Hazardous Materials Transportation Permit. (*Where Required and if applicable*)
Copies of BATF Explosives Permit.
Proof of liability insurance minimum of \$500,000.00 with Town named as additionally insured.
Copy of Workman's Compensation Insurance coverage for ALL personnel involved in any way.
Letter of consent from property owner acknowledging the event and the use of pyrotechnic/fireworks.
Copy of script or cue sheet for the event.

DEVICES LIST:

Description, size, number & location of ground devices, aerial devices, pyrotechnic special effects, etc.

EQUIPMENT LIST, SPECIFICATIONS, CUT SHEETS AND UL™ LISTINGS:

List of electronic firing devices, mortar racks, mortar boxes, comet racks, set pieces, magazines, etc.
Copies of cut sheets or specifications showing U.L.™ listing for equipment and appliances.
Written diagram showing layout of all fireworks system components.
Detailed description of electronic firing system and two step safety interlock.

Reviewed By: _____ Date: _____

APPROVED

APPROVED AS NOTED

CORRECT & RESUBMIT.

This plan review is for general compliance with the requirements of the Uniform Fire Code and amendments as adopted by the State of New Jersey and Princeton Township Local Enforcing Agency (LEA). The applicant is responsible for meeting all requirements of the code before final approval is granted by the LEA. The LEA approval of drawings, design, plans, and specifications shall not in any way relieve the applicant of the responsibility for the technical accuracy of the work. This review shall not be construed to grant approval for non-compliance with any code or ordinance enforced by any other regulatory agency. Selling any fireworks, falsifying or withholding any information, failure to comply with any order of a Fire Official or failure to comply with any portion of these requirements will cause for revocation of the permit and cancellation of the display. Firing of fireworks without a valid permit may result in a violation notice being issued and or confiscation of products. I have read and understand the above information as well as the attached Inspection Checklist. I agree to abide by the policies, code and standards as adopted.

Contractor Signature: _____ Date: _____

Comments

REQUIREMENTS

CODES AND STANDARDS:

Fireworks outdoor displays shall be conducted in compliance with the following standards:

- New Jersey Statutes Annotated, *N.J.S.A. 52:27D-192 et seq. N.J.S.A. 21:2-1 & 21:3-1 et seq.*
- Uniform Fire Code of New Jersey, *N.J.A.C. 5:70-3.2(a) 31. F-3101.0.*
- National Fire Protection Association, *Standard 1123-95 and 1124-95*
- Appropriate Insurance *N.J.A.C. 5:70-3.2(a)31. F-3103.4*
- Policies listed on the Inspection Checklist.

PERMIT REQUIRED:

UFC Permit are required to conduct a fireworks display *N.J.A.C. 5:708-3.2(a)31. F-3103.3.1 NFPA 1123-95-5-3*

INSPECTION REQUIRED:

- Fire Official/Inspector(s) must inspect site, fireworks, equipment, installation and display. *N.J.A.C. 5:71:3.3(a)5 //NFPA -95 1123:3-1.2.*
- Immediate compliance with Fire Officials/Inspector orders is required or permit will be revoked. *N.J.A.C. 5:70-2.7(g).*

PYROTECHNIC OPERATOR QUALIFICATIONS:

- Fireworks displays shall be under the direct supervision of pyrotechnic operator. *NFPA 1123-95 4-1.3*
- The pyrotechnic operator shall be responsible for all aspects of a pyrotechnic display *NFPA 1123-95 4-1.3-*
- The pyrotechnic operator shall be qualified/Experienced Fireworks Display Operator. *NFPA1123-95 5-1.2 & D-1.2*
- The pyrotechnic operator shall be at least 21 years old. *NFPA 1123-95:5-1.1.*
- Assistants or helpers must be 18 years old and operate under direct supervision of the permit holder. *NFPA 1123-95 5-2*
- The operator is responsible for ensuring that all assistants are fully trained. *NFPA 1123-95: 4-1.3.2.*
- No person shall be allowed in the discharge area while under the influence of alcohol, drugs, etc. *NFPA 1123-95:4-1.8*

LOCATION:

- Fireworks storage, display and fallout areas must be approved by the Fire Official/Inspector. *N.J.A.C. 5:70- 3.2(a)31. F-3103.1. & NFPA 1123-95 3-1.2*

TRANSPORTATION:

- Vehicles transporting explosives must follow approved hazardous materials transportation routes. *NFPA 1124-95:5-4.2.*
- Vehicles transporting and storing explosives may not be parked in the public right-of-way. *NFPA 1124-95:5-4.3.*
- Vehicles transporting and storing explosives shall be placarded to DOT-US standards. *NFPA 1124-95:5-1.1.*
- Vehicles transporting and storing explosives must remain in a security area while explosives are aboard.

ON SITE STORAGE:

- Fireworks shall be inspected by pyrotechnic operator upon delivery. Aerial shells having tears, leaks, broken fuses or showing signs of having been wet shall be properly disposed of. *NFPA -95: 1123, 2-2.3.*
- All fireworks shall be stored in fire resistant, weather resistant, secured storage boxes *NFPA 1124-95:,3-1.*
- Site must be protected by security personnel at all times when explosives are present.
- When the public is present, uniformed security personnel may be required.
- NO SMOKING OR OPEN FLAME signs shall be conspicuously posted. *NFPA 1123-95: 4-1.6.*

ELECTRICALLY IGNITED DISPLAYS:

All public fireworks displays and pyrotechnic effect must be electrically ignited ONLY.

NO reloading or hand firing is allowed.

Electrical wiring associated with an electrical firing unit shall be prevented from contacting metal objects in contact with the ground. *NFPA 1123-95: 2-4.2.*

AC-powered electrical firing units shall be isolated from the power source using a line isolation transformer. *NFPA 1123-95: 2-4.2.1.*

ALL firing systems shall be designed to insure against accidental firing by providing at least a two step interlock.

Interlock must be designed so that no power can be applied to a firing circuit unless the operator

Intentionally enables or arms the firing system and

Deliberately applies firing power

Electrical firing devices shall require operation of a key-operated switch or other similar device to prevent unauthorized operations. *NFPA 1123-95: 2-4.3.*

Manually activated electrical firing devices shall require two or more distinct actions to apply electric current to electric match. *NFPA 112-395: 2-4.3.1.*

Automatic-sequencing-type electrical firing units shall include a momentary contact switch which must be held to cause application of current to an electric match and which will immediately disconnect current to all electric matches upon release. *NFPA 1123-95: 2-4.3.2.*

Personnel shall be kept at a safe distance from connected fireworks during testing. Electrical firing units with integral test circuits shall be designed to limit the maximum current output during a test to 0.05 ampere or 20 % of the no-fire current of electric matches, whichever is less. *NFPA 1123-95: 2-4.4 , 2-4.4.2.*

Multi-testers shall not be used for testing unless the maximum current output has been measured and determined not to exceed the current output limits for integral test circuits. *NFPA 1123-95: 2-4.4.*

AERIAL SHELL DISPLAYS:

The following aerial shells are prohibited:

Parachute shells, helicopter, flying saucers and similar devices.

Multiple break shells

Shells over eight(8) inches in diameter. **(Special Authorization Required by AHJ)**

Electrical control panel shall be located a minimum of 50' from devices or as approved.

Mortar location and fallout area must be approved by the Fire Official/Inspector. *NFPA 1123-95: 3-1.2.*

Minimum mortar separation distances **per NFPA 1123-95 table-3-1.3**

Mortars shall be approved for use with aerial shells to be fired. *NFPA 1123-95 2-3.6*

Mortars shall be constructed of heavy cardboard, paper, or metal other than cast iron. *NFPA 1123-95: 2-3.6.1.*

Paper mortars are approved only for limited use.

Mortars shall be marked near the top with inside diameter of the mortar. *NFPA 1123-95:2-3.8.*

Mortars shall be inspected prior to placement for defects such as dents, bent ends , etc. *NFPA 1123-95: 2-3.1*

Mortars shall be aimed over fallout area away from spectators and ground pieces. *NFPA 1123-95: 2-3.2.*

Trajectory of shells at discharge site shall not come within 25' of any overhead object. *NFPA 1123-95: 3-2.1.*

Mortar seams shall face to the side *NFPA 1123-95: 2-3.6.2.*

Mortars over 6" shall be buried minimum 2/3 of length deep. *NFPA 1123-95: 2-3.3.*

Mortars under 6" may be secured in mortar racks for single break shells. *NFPA 1123-95: 2-3.3.*

In damp weather mortars shall be protected from moisture on top and bottom. *NFPA 1123-95: 2-3.3.1.1/2.*

Loaded mortars shall be lightly taped to indicated if shell discharges. *NFPA-1123-95: 4-2.8.1*

Ground burst protection required up range to protect operator from ground bursts. *NFPA 1123-95: 2-3.4.*

Loose gravel, rocks, etc. Shall be removed from the mortar area.

GROUND PIECES:

- Ground pieces shall be located not less than 125' from spectators and vehicles **NFPA 1123-95 3-2.2**
- Fixed ground pieces(no moving parts) allowed 75' from spectators and vehicles. Exception #1.**NFPA 1123-95: 3-2.2.**
- Ground pieces shall be located not less than 100' from tents and canopies. **NFPA 1123-95: 3-2.4.**
- Ground pieces shall be located not less than 100' from mortars.
- The area beneath ground pieces shall be free of dry grass and combustibles. **NFPA 1123-95: 4-3.2.**
- Poles for ground pieces shall be securely placed and braced. **NFPA 1123-95: 4-3.3.**

FIRE PROTECTION:

- The pyrotechnic operator shall provide portable fire extinguishers at the discharge site. **NFPA 1123-95: 4-1.1.**
- Fire apparatus shall be on standby for protection down range. **NFPA 1123-95: 4-1.1.**

SITE SAFETY & SECURITY OPERATIONS:

- The pyrotechnic operator or promoter shall employ monitors who's sole duty shall be to enforce crowd control around the display area. Unauthorized persons shall not be allowed to enter the discharge site until the site has been inspected after the display by the pyrotechnic operator. **NFPA 1123-95: 4-1.2.**
- A perimeter, approximately 100' in diameter from the discharge area shall be physically secured from the public access by a snow fence.
- The fire official/Inspector or pyrotechnic operator may immediately **STOP** the display for safety concerns. **N.J.A.C. 5:70-NFPA 1123-95: 4-1.4.**
- Display operators shall use only flashlights or electrically lighting for illumination. **NFPA 1123-95: 4-1.5.**
- NO SMOKING OR OPEN FLAME signs shall be conspicuously posted. **NFPA 1123-95: 4-1.6.**
- Protective clothing including hard hats must be utilized by operators to protect themselves.
- A site safety meeting shall be conducted with all personnel.
- Ready boxes shall be located not less than 25' in an upwind direction from the mortars. **NFPA 1123-95: 2-2.5.**
- Aerial shells shall be carried to mortars by the shell body. Aerial shells shall be held by the thick portion of the fuse and carefully loaded into mortars. **NFPA 1123-95: 4-2.1, 4-2.3.**
- Aerial shells shall be checked for proper fit in the mortars while loading. The pyrotechnic operator shall inspect all aerial shells to be certain that they are properly seated in mortars prior to firing. Aerial shell that do not fit properly shall not be fired. **NFPA 1123-95: 4-2.4, 4-2.5.**
- The Safety caps protecting a fuse shall not be removed until immediately before display. **NFPA 1123-95: 4-6.1.**
- One aerial shell must be fired first and singly and be carefully observed to determine wind and trajectory into approved fallout area. The operator must modify or postpone the display as requested by the Fire Official/Inspector. **N.J.A.C. 5:70-NFPA 1123-95: 4-2.7.**
- If an aerial shell fails to ignite in a mortar, it shall be left alone for a minimum of 15 minutes, then properly disposed of. Damaged aerial shells shall not be repaired or dismantled. **NFPA 1123-95 4-2.8**
- The entire firing range shall be immediately inspected following a display and prior to allow public access to locate unexploded aerial shell. Such shells shall be properly disposed of. **NFPA 1123-95- 4-2.10**
- The pyrotechnic operator shall provide a verbal explanation of misfires, dud, injury or accidents to the Fire Official/Inspector immediately following the display. A written report may also be required.