

OSHA Safety Guidelines for Display Fireworks Sites v. June 2004

The Occupational Safety and Health Administration has compiled the following list of safety guidelines designed to advise display fireworks operators and other affected employers of some procedures that may be followed to help ensure that display fireworks are used safely. It is important to understand that due to their sensitivity, display fireworks can present hazards when improperly handled or used. During the peak season encompassing the 2003 Independence Day holiday, ten fatalities occurred nation-wide involving personnel setting up and conducting fireworks displays. Employers are encouraged to follow these or other more protective safety guidelines when using display fireworks. The following safety guidelines do not supersede any regulatory requirements adopted at the Federal, State, or local levels.

Pre-Display Approval Checklist

- Obtain required Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF) licenses and permits.
- Obtain U.S. Coast Guard approval for displays fired from harbors or navigable waterways.
- Obtain Federal Aviation Administration (FAA) approval if close to an airport or heliport.
- Ensure pilots are warned through issuance of a Notice to Airmen (NOTAM).
- Submit required applications to the State and/or local Authority Having Jurisdiction (AHJ) and obtain necessary approval, licenses and permits.
Minimum items to address include:
 - Qualified operator in charge
 - Properly trained assistants
 - Site layout with proper separation distances
 - Event description
 - Firing procedures
 - Termination procedures
 - Emergency procedures
- Arrange for inspections required by State/local AHJ or Federal authorities.
- Obtain approval from appropriate authorities to close roads or restrict access.
- Arrange for fire service and EMS to be available for the display.
- Obtain the required or appropriate insurance.

Pre – Display Site Checklist

- Establish site security prior to arrival of pyrotechnic materials.
- Protect all fireworks, pyrotechnic materials, and launching equipment from inclement weather and keep them dry at all times.
- Prohibit smoking material, matches, lighters or open flames within 50 feet of fireworks or pyrotechnic material.
- Only necessary personnel required to perform the display set up and show shall be allowed at the display site.
- Prohibit persons in the display site who are under the influence of alcohol, narcotics, or medication that could adversely affect judgment, mobility, or stability.
- No cell phones or radio frequency (RF) generating devices are permitted within the immediate discharge area while electrically ignited fireworks or pyrotechnic devices are prepared, loaded, or set up.
- Wear all personal protective equipment appropriate for setup duties.
- Verify that all mortars and racks are made of approved materials, and are of sufficient strength, length and durability to allow shells to be propelled to safe deflagration heights.
- Make sure all mortars, mortar racks, bundles, pre-loaded box items, cakes, candles, and ground displays have been thoroughly inspected and deemed inherently stable.
- Avoid placing any portion of your body over mortars during loading, wiring, or igniting, and immediately after the display has been fired.
- Use safe handling and loading procedures for all pyrotechnic devices.
- Pre-load larger shells as required.
- Check proper fit of shells in mortars.
- Designate spotter(s).

Display Checklist

- Verify fire service and emergency medical service (EMS) units are available and ready to respond
- Establish good communications between crew, event sponsor, AHJ, and fire service/EMS units.
- Maintain crowd control, utilizing monitors and/or barriers.
- Use all required personal protective equipment especially protection for: head, eye, hearing, and foot.
- Wear long-sleeved and long-legged clothing made of cotton, wool or similar flame resistant cloth.
- Avoid placing any portion of your body over mortars when manually igniting them.
- Monitor weather and crowd conditions to maintain safety.

- Comply with directions given by the AHJ, spotter(s), or fire/EMS units
- Use only flashlights or other nonincendive lighting in firing and ready box areas.

Post - Display Checklist

- Wear personal protective equipment appropriate for cleanup duties.
- Disable any electric firing switches and disconnect all electric cables.
- After at least 15 minutes, conduct search of the display and fallout areas.
- Follow proper marking and warning procedures for unexploded shells.
- Ensure that all unused live product and duds are accounted for, properly handled, repackaged and secured according to Federal, State and local regulations.
- Conduct a second site search at first light.