



## APA Proximate Pyrotechnics *Training Program*

### Chapter 11

## 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, such as 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.*

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*NFPA references are from NFPA 1126; 2025 Edition.*

## Pre-production checklist (pyrotechnician)

1. Prepare and file permit application for pyrotechnics. (NFPA 1126: 6.2.1)
2. Determine what regulatory standard is used for the jurisdiction.
3. Prepare pyrotechnic material description. (NFPA 1126: 6.3.2 (10))
4. Review production schedule.
5. Determine installation plot plan and specifications. (NFPA 1126: 6.3.2 (11))
6. Determine insurance levels; have insurance certificate prepared with appropriate additional insured parties and filed. (NFPA 1126: 6.3.2 (9))
7. Determine any pyrotechnic licenses required and other qualifications of personnel. (NFPA 1126: 6.3.2 (8))
8. Plan pyrotechnic transportation, handling, and storage. (NFPA 1126: 5.1, 5.2)
9. Determine and plan for security requirements. (NFPA 1126: 8.5.3)
10. Determine venue management contact information.

## Site inspection checklist (pyrotechnician and venue management)

1. Confirm venue management consent to pyrotechnics. (NFPA 1126: 6.1.4)
2. Confirm venue management or production permit for event.
3. Verify plot plan measurements and accuracy. (NFPA 1126: 6.3.2 (10) and (11))
4. Verify AHJ (authority having jurisdiction) approves venue's 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 (such as fall protection plans and equipment).
10. Verify AHJ approval of flame-retardant materials in public areas and pyrotechnic installation sites.
11. Determine approved and secure storage and work areas for pyrotechnics. (NFPA 1126: 5.1.1, 6.3.2 (12) and (13), 8.1.3, 8.1.4 )
12. Determine hazmat shipping depot (for the venue) if required.

## Production meeting checklist (production management)

1. Confirm installation plan and schedule. (NFPA 1126: 6.2, 6.3)
2. Schedule live pyrotechnic demonstration. (NFPA 1126: 6.4.1, 6.4.2)
3. Schedule rehearsal and performance.
4. Determine need for HVAC/fire protection system control adjustments and personnel responsibilities. (NFPA 1126: 6.4.3, 8.1.6, 8.6.6, 8.7.6, 8.7.7)
5. Assign responsibility for hazard communication with participants and staff. (NFPA 1126: 8.6.1)
6. Review emergency action plan and assign responsibilities.
7. Coordinate pyrotechnic control points, communications and line of sight. (NFPA 1126: 8.3.5, 8.3.6, 8.6.5)
8. Review crew lists and assignments.

9. Review safety plans and procedures, including personal protective equipment. (NFPA 1126: 8.5.7)

## Walkthrough inspection checklist (AHJ)

1. Conduct pyrotechnic walkthrough and demonstration.
  - a. Confirm venue management consent to pyrotechnics.
  - b. Verify pyrotechnic plot with actual site dimensions/adjustments.
2. Review device types; verify indoor/proximate use and performance specifications. (NFPA 1126: 7.1, 7.2, 7.3, 7.4)
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, including but not limited to the following considerations:
  - a. Minimum separation distance to be 15 feet or twice the fallout radius. (NFPA 1126: 8.4.1)
  - b. Concussion mortars are a minimum of 25 feet from all persons, and in secured area. (NFPA 1126: 8.4.2)
  - c. Trajectory of comets/mines is not over audience. (NFPA 1126: 8.2.10)
  - d. Waterfall effect area to be free of flammable materials. (NFPA 1126: 8.2.11)
  - e. Wire rocket effects to be properly secured and terminated. (NFPA 1126: 8.2.8.1)
  - f. Airbursts over audience to be minimum height of three times the diameter of effect, and no sparks within 15 feet of floor. (NFPA 1126: 8.2.13 (2) and (3))
6. Check firefighting equipment.
  - a. Minimum of two approved water fire extinguishers. (NFPA 1126: 8.1.1.1)
  - b. Other firefighting equipment as needed/required. (NFPA 1126: 8.1.1 and 8.1.1.2)
  - c. Existing onsite firefighting equipment/systems.
7. Check pyrotechnic firing systems.
  - a. Verify operational/safety features and system functions. (NFPA 1126: 8.3.2 and 8.3.3)

- b. Verify operator and spotters have clear view of effects and communication with operator. (NFPA 1126: 8.3.5.1 & 8.3.5.2)
- 8. Determine plan for HVAC/ smoke detector adjustments and notification of demonstration.
- 9. Determine need for demonstration of representative effects.
- 10. Check plans for approved and secure onsite storage and preparation areas. (NFPA 1126: 6.3.2 (12), 8.1.3 and 8.1.4)
  - a. Separation of 50 feet from heat/flame sparks (NFPA 1126: 5.3)
  - b. No smoking within 25 feet (signage) (NFPA 1126: 8.5.5.1)
  - c. Materials stored/handled in neat and orderly manner (NFPA 1126: 8.5.1)
- 11. Check plan for personal protective equipment needed for preparation and loading of pyrotechnics. (NFPA 1126: 8.5.7)

## Rehearsal and show checklist (pyrotechnician)

- 1. Hold safety meeting with all participants.
- 2. Hold rehearsal, if required (all requirements of following section apply).
- 3. Execute final alert, inspection, and 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.
    - i. Confirm pyrotechnic wiring connections and firing system.
    - ii. Confirm device placement, mounting, orientation, and readiness.
    - iii. Confirm firefighting equipment in position.
    - iv. Confirm spotters in place with communication.
  - c. Execute or fire show.
    - i. Confirm and maintain audience separation, correct positioning of performers, and readiness of support personnel.
    - ii. Confirm and maintain unobstructed view of effects by operator and/or spotter.
    - iii. Observe effect performance for safe operation.

## Post-show checklist (pyrotechnician)

1. Inspect all pyrotechnic devices to confirm firing. (NFPA 1126: 8.7.1.1)
2. Confirm the integrity of fallout zones and adjacent areas.
3. Return unfired devices to approved storage or repackage for transportation. (NFPA 1126: 8.7.1.2)
4. Confirm reactivation of any disarmed fire detection/HVAC systems to normal operating mode. (NFPA 1126: 8.7.6)
5. File post-show report, if required.