



# Long Beach Fire Department Bureau of Fire Prevention

FIRE PREVENTION REQUIREMENT  
NO. 1.005 1/16

## REQUIREMENTS FOR LASER LIGHT SHOWS

- A. Operator shall obtain a Laser Light Show Permit (#2.032) from the Bureau of Fire Prevention a minimum of 48 hours prior to date of event.
- B. Operator shall comply with the City of Long Beach Insurance requirements as stated on Permit #2.032.
- C. If applicable, Operator shall show compliance with Rules and Regulations of the Federal Aviation Administration.
- D. Operator shall show a copy of approved variance to Fire Officers in charge.
- E. Operator shall show a copy of firms written procedures for the setting-up, checking-out and alignment of the laser projector & effects.
- F. Equipment Checks:
  1. Are all protective housing in place with proper tight fit?
  2. Is the projector secured rigidly in place?
  3. Before activating the laser, check that all beam shutters are operable and are left in the closed positions.
  4. Make sure that the laser:
    - a. Cannot be energized without the key
    - b. The key cannot be removed while in the "on" position
    - c. Key removal terminates operation
  5. Check that all accessory optics such as mirrors and targets are secured in place.
  6. Energize the laser at the lowest possible power (without allowing the laser light to emerge and with shutters closed).
  7. Confirm that all emission indicators and the emission delay operate properly.
  8. Verify that all required labels are in place and visible on the laser product:
    - a.  Certification
    - b.  Identification
    - c.  Aperture(s)
    - d.  Protective Housing(s)
    - e.  Warning Logotype(s)

**G. Alignment Checks:**

1. Evacuate all but essential personnel from the facility. These checks must be performed with no audience present.
2. Make certain that you have visual control of the entire projection space from your operating location (especially the audience space) and that all areas are secured per ANSI Z136.1 standard.
3. Operating the laser at the lowest possible power, open the shutters and perform alignment(s).
4. Perform a physical survey to confirm that beams exceeding Class II will be separated from the audience by at least the minimum distances required (3 meters, about 10 ft., in vertical separation above any surface upon which the audience may stand and 2.5 meters, about 8 ft., in horizontal separation and vertical separation below audience locations for shows under continuous operator control, and 6 meters, about 20 ft., in vertical separation above any surface upon which the audience may stand 2.5 meters, about 8 ft., in horizontal separation and vertical separation below audience locations for shows not under continuous operator control).
5. Review your proposed projections with venue management to be certain that the audience will not be permitted access to locations resulting in a violation of item 4 above.

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(Name/Title of Management Agent with whom review was conducted)

6. Operate the projector at the power required for the show, make sure that there are no spurious reflections into unintended areas and that the conditions of item 4 are maintained.
7. Confirm that all projectors and optics are rigidly secured and cannot be disturbed during subsequent setup operations or during the show itself.
8. Check for operation and proper setting of all devices related to safety including:
  - a. Beam blocks
  - b. Scanning safeguards
  - c. Emergency stop controls
9. Maintain continuous surveillance of the projectors and all optics between the times of alignment and the show to be certain that the alignment of the projector and optics is not disturbed.



# Long Beach Fire Department Bureau of Fire Prevention

OPERATIONAL FIRE PERMIT  
NO. 2.032 1/16

## RELATED TO A LASER LIGHT SHOW

FDA Approved Variance # \_\_\_\_\_ Date of Variance Termination \_\_\_\_\_

Name of Laser Light Show Company \_\_\_\_\_

Company Representative \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Company Address \_\_\_\_\_ Fax (\_\_\_\_) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

Operator Responsible for Safety of Show \_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

Date/s and Time/s of Show/s \_\_\_\_\_

Location of Show/s \_\_\_\_\_

Manufacturer of the Laser Light Show/Display Product and Address:

\_\_\_\_\_ Phone (\_\_\_\_) \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip Code \_\_\_\_\_

List those Agencies you have notified of you show \_\_\_\_\_

\_\_\_\_\_

List the Effects to be performed \_\_\_\_\_

\_\_\_\_\_

**Indemnification of City** - Applicant hereby agrees to indemnify and defend the City, its officers, agents, employees and volunteers against any and all claims for injury, damage or expense which they may incur arising out of or in any way connected with any and all operation authorized or permitted by this permit.

**Liability Insurance** - As a condition of the issuance of this permit, applicant shall provide and maintain on file with the City evidence of current liability insurance for the laser light show in an amount not less than \$1,000,000 combined single limit per occurrence. Said insurance shall name the City of Long Beach, its officers, agents, employees and volunteers as additional insured and shall be in a form and with insurers approved by and acceptable to the City Manager.

I, THE UNDERSIGNED, HAVE READ COMPLETELY AND FULLY UNDERSTAND THE REQUIREMENTS OF THIS FORM WHICH APPLY TO THIS APPLICATION FOR PERMIT.

Applicant's Signature \_\_\_\_\_ Title \_\_\_\_\_

**NOTE:** Conditions, surroundings and arrangements shall be in accordance with the Long Beach Municipal Code. Non-compliance of same and/or the conditions and restrictions of this permit shall render this permit null and void. **A fee shall be assessed based upon the most current fee schedule.**

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**For Dept. Use Only**

Approved  Denied By: Captain/Inspector \_\_\_\_\_