

DEPARTMENT OF HEALTH AND HUMAN SERVICES PUBLIC HEALTH SERVICES FOOD AND DRUG ADMINISTRATION	APPLICATION FOR A VARIANCE FORM 21 CFR 1040.11 (c) FOR A LASER LIGHT SHOW, DISPLAY, OR DEVICE	Form Approved: 09100-0025 Expiration Date November 30, 2003 See Page 4 for OMB Statement. DOCKET NUMBER
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NOTE: No laser light show, projection system, or device may vary from compliance with 21 CFR 1040.11 (c) in design or usage without the approval of this Application in accordance with 21 CFR 1010.4.

INSTRUCTIONS 1. Check all applicable boxes and type or print the Required information. 2. Submit an original and four (4) copies.	3. Mail your application to the Dockets Management Branch (HFA-305), Food and Drug Administration, Room 1061,5630 Fisher Lane, Rockville, MD 20852. 4. Enter Document Number if Assigned.
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1. NAME OF COMPANY **True Lasers LLC**

2. ADDRESS OF COMPANY (Include ZIP CODE) (IF P.O. Box is used, include actual street address also.)
204 Baldwin St West Springfield, MA 01089

3. NAME AND TITLE OF RESPONSIBLE PERSON Charles E. Rogers III President	4. TELEPHONE NO. (Include area code) 1-860-992-3056	5. DATE OF SUBMISSION January 30 2003
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6. THE APPLICANT REQUESTS THE VARIANCE TO BE IN EFFECT FOR PERIOD OF 2 YEARS FROM THE DATE OF ISSUE. (In general, the Agency will approve a variance for only two years. If a longer period is requested, a justification must be attached as part of the application.)

a. LIST NAME AND/OR MODEL NUMBERS (S) FOR THE LISER LIGHT SHOWS (S) AND PROJECTORS (S)
True Lasers LLC

b. PRODUCT FOR WHICH A VARIANCE IS REQUESTED <input type="checkbox"/> A laser display device <input type="checkbox"/> A projector for a laser light show <input checked="" type="checkbox"/> A laser light show <input checked="" type="checkbox"/> Other (Specify)----- AS PER NOTIFICATION c. PROJECTORS ARE INTENDED FOR SALE, LEASE, OR LOAN TO OTHER LASER LIGHT SHOW PRODUCERS d. [X] PRODUCT IS INTENDED FOR USE IN A <input checked="" type="checkbox"/> Planetarium or other dome projection structure <input checked="" type="checkbox"/> Theater <input checked="" type="checkbox"/> Hotel/motel ballroom or meeting room <input checked="" type="checkbox"/> Store display <input checked="" type="checkbox"/> Trade show or convention <input checked="" type="checkbox"/> Discotheque or nightclub <input checked="" type="checkbox"/> Pavilion <input checked="" type="checkbox"/> Indoor arena <input checked="" type="checkbox"/> Outdoor arena <input checked="" type="checkbox"/> Museum <input checked="" type="checkbox"/> Outdoor unenclosed area <input checked="" type="checkbox"/> Other (Specify)----- AS PER NOTIFICATION c. PRODUCT IS INTENDED TO BE USED <input type="checkbox"/> At only one (Fixed) Location. <input checked="" type="checkbox"/> At a variety of (Tour) locations <input checked="" type="checkbox"/> Other (Specify)----- AS PER NOTIFICATION	f. PRODUCT IS INTENDED TO BE USED AT ANY ONE LOCATION <input checked="" type="checkbox"/> More than 15 days <input checked="" type="checkbox"/> More than 5 days but not more then 15 days <input checked="" type="checkbox"/> Less than 5 days g. TOUR IS INTENDED TO RUN FOR <input type="checkbox"/> More than 6 months <input type="checkbox"/> 1 - 6 months <input type="checkbox"/> Less than one month <input checked="" type="checkbox"/> Not applicable (Not a Tour <input checked="" type="checkbox"/> Other (Specify)----- AS PER NOTIFICATION h. PRODUCT UTILIZED THE FOLLOWING LASER EFFECTS <input checked="" type="checkbox"/> Front screen projections <input checked="" type="checkbox"/> Rear screen Projections <input checked="" type="checkbox"/> Holographic Displays <input checked="" type="checkbox"/> Multiple reflections/diffraction effects <input type="checkbox"/> Audience scanning (Also includes scanning any accessible Uncontrolled areas) <input checked="" type="checkbox"/> Reflections from stationary mirrors or mirrored Surfaces (Beam Matrices) <input checked="" type="checkbox"/> Stationary irradiation of rotating mirror balls, Etc <input checked="" type="checkbox"/> Scanning irradiation of rotating mirror balls, Etc. <input checked="" type="checkbox"/> Fiber optic projections <input checked="" type="checkbox"/> Fog, Smoke, or other scattering enhancement effects <input checked="" type="checkbox"/> Other (Specify)----- AS PER NOTIFICATION
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8. LASER RADIATION LEVELS		
LASER MEDIUM (Ar, He-Ne, etc	WAVE LENGTHS (NM)	PEAK POWER (watts)
KRYPTON	400 - 700 nm	8 WATTS
ARGON / YAG	457.9 - 532 nm	40 WATTS
ARGON / KRYPTON (WHITE)	457.9 - 676.4 nm	20 WATTS

9. IF ANY LASER RADIATION IS PULSED OR SCANNED, GICE THE PULSE DURATION AND RATE AND SCANNING FREQUENCYS AND AMPLITUDE. SCANNING BAND WIDTH FROM DC TO 5 KHz MODULATION IN BOTH COLOR AND INTENSITY FROM DC TO 100 KHz.

10. REASON FOR REQUESTING VARIANCE.

Compliance with the limits of 21 CFR 1040-11 (c) would restrict the intended use of the product because compliance would limit the output power to the extent the desired effects would not be sufficiently visible.

Other or additional explanation (Specify) _____

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VAR1

11. MANNER IN, WHICH IT IS PROPOSED TO DEVEIATE FROM THE REQUIREMENTS OF THE APPLICATION STANDARD

It is proposed to deviate from the provisions of 21 CFR 1040.11 (c) in that the accessible emission level would exceed the Accessible emission limits specified in 21 CFR 1040.11 (c).

It is proposed to deviate from the provisions on 21 CFR 1040.11 (c) as follows:

12. ADVANTAGES TO BE DERIVED FROM SUCH DEVIATION

Laser light shows and displays are accepted popular media in entertainment and the arts. Use of power levels in excess of the limits imposed by 21 CFR 1040.11(c) is necessary to achieve the required effects in these media

Other or additional advantages (described and explain)

13. EXPLAIN THE ALTERNATE MEANS OF RADIATION PROTECTION TO BE PROVIDED. (Check as many boxes as apply, in item 14 "Remarks," justify any boxes not checked, using additional sheets as necessary. State any other means of radiation protection that will be used.)

- a. All laser products, systems, shows, and projectors will be certified to comply with 21 CFR 1040.10 and the conditions of this variance and will be reported as required by 21 CFR 1002.10 AND 1002.11 using the reporting guide provided for such purpose. These actions will be accomplished prior to any introduction into commerce.
- b. Effects not specifically indicated in this variance application will not be performed, no other effects will be added until an amendment to the variance has been obtained and required or supplements, as applicable, have been submitted.
- c. Scanning, projection, or reflection, of laser and collateral radiation (Light show radiation) into audience or other accessible uncontrolled areas will not be permitted except for diffuse reflections produced by the atmosphere, added atmospheric scattering media, and target screens.
- d. Laser radiation levels in excess of the limits of Class I will not be permitted at less than 3.0 meters above any surface upon which persons other than operators, performers, or employees are permitted to stand or 2.5 meters below or in lateral separation from any place where such persons are permitted to be. Operators, performers, and employees will not be required or allowed to view radiation above the limits of Class I or be exposed to radiation above the limits specified in 21 CFR 1040.11 (c).
- e. Any product which relies on scanning to meet access, exposure, or product class limits will incorporate a scanning safeguard system which directly senses scanner motion and which will react fast enough to preclude exceeding the applicable limits.
- e. All laser light shows shall be under the direct and personal control of trained, competent operator's. The operator(s) will:
 - a. Be an employee of the holder who will be responsible for the training and the conduct of the operator.
 - b. Be located where all beam paths can be directly observed at all times; and
 - c. Immediately terminate the emission of light show radiation in the event of any unsafe condition; or, for outdoor shows, upon request By any air traffic control officials.
- f. The maximum laser projector output power will not exceed the level required to obtain the intended effects.
- g. The projection system (i.e., the projector and all other components used to produce the lighting effects) will be securely mounted or immobilized to prevent unintended movement or misalignment. Beam masking will be provided as an inherent part of the system design to prevent overfilling of screens, beam stops, targets, etc.
- h. Laser projectors will not be delivered to any other party under an agreement of sale, lease or loan unless the recipient demonstrates that they have a variance in effect at the time of delivery that permits them to produce laser light shows incorporating such projector (s).
- i. In addition to the requirements of 21CFR 1040.10 (h), the manufacture of laser projectors/systems will provide to parties who purchase, lease, or borrow the equipment, adequate user's instructions for safe installation and operation and which the responsibility of the recipient as an independent light shows manufacture to submit the required reports and apply for and obtain from CDRH prior to introduction into commerce of any laser light show.
- j. The requirements of 21 CFR 1002.30 (a) (1) and (2) will be accomplished through the use of written procedures for setup, alignment, testing, and performance of each show. These procedures will be in sufficient detail to ensure compliance with 21 CFR 1040.10, the condition of this variance, and the control of access to radiation areas using the procedures described in the ANSI Z136.1 standard for the safe use of lasers (American National standard Institute, 1430 Broadway, New York, NY 10018) or any other equivalent user consensus standard and, where applicable, state or local requirements, Laser radiation areas which can contain radiation levels above the limits specified in 21CFR 1040.11(c) will be clearly identified by posting of warning signs and/or restricting access through physical means (Such as pressure switches, photocell, barriers, guards, etc). These requirements apply to temporary areas (such as during set-up and alignment procedures) and to final or permanent areas. The variance holder will retain the records of these procedures and the results of all tests as required by 21 CFR 1002.31. A copy of the variance application, the approval letter, current procedures, and records relating to each particular show will be with the operator or other responsible individual and will be made available for inspection by FDA and other responsible authorities.

1. [X] Advance written notice will be made as early as possible to appropriate federal, state, and local authorities providing show itinerary with dates, locations clearly and completely identified, and a basic description of the proposed effects including a statement to the maximum power output intended. Such notification will be made, but not necessarily be limited, to:
- (1) The Center for Devices and Radiological Health, Office of Compliance (HFZ-342), 2098 Gaither Road, Rockville, MD 20850 Providing the Initial and closing dates for fixed installations and the itinerary for mobile shows, In addition, unless all aspects of such shows have been Reported and the accession numbers clearly referenced, each notice will include detailed descriptions of each show and a listing of all effects to Be performed in sufficient detail to confirm compliance with the regulations and this variance.
 - (2) The Federal Aviation Administration (FAA) for any projections into open airspace at any time (i.e., including set-up, alignment, rehearsals, Performances, etc.) If the FAA objects to any laser effects, the objections will be removed and any conditions requested by FAA will be Adhered to. If these conditions cannot be met, the objectionable effects will be deleted from the show.
 - (3) State and local radiation control offices/agencies for all shows to be performed within their jurisdictions. All requirements of state and local Law will be satisfied and any objections raised by local authorities will be resolved or the effects deleted. (A list of federal and state offices is Available from the Center for Devices and Radiological Health upon request.)


14. REMARKS

True Lasers LLC will only use FDA/CDRH certified projection equipment, From time to time new, rental, and lease, projector's May be required. In this event, True Lasers LLC will notify FDA/CDRH with Information to include designation, model number, docket and variance information as required in 21 CFR 1002.10 and 1002.11 using required guides provide for such purpose.

CERTIFICATION

I CERTIFY that all the above information and statements are true, complete and correct to the best of my knowledge and acknowledge that my variance application may be denied or my variance may be revoked if this application is found to be false, misleading, or incorrect in any material way. I have submitted and will submit all reports by 21 CFR 1002.10 and 1002.11 on the laser equipment and show(s). I further understand that I may be required by regulation or by the Director, Center for Devices and Radiological Health, to supply such other information as may be necessary to evaluate and act on this application.

15. SIGNATURE



16. NAME (type or print)

Charles E Rogers III

17. TITLE

President