Laser Specs and Hazard Analysis

Inventory Number:

Laser Type: Class:

Embedded Laser: y n Class of embedded laser:

Manufacturer:
Model:
Serial Number:

Tunable: y n Wavelength(s):

Power/Energy Output:

CW/Single Pulse/Multiple Pulse/Combination

Pulse Duration: PRF:
Beam divergence: Emergent Beam Diameter:
Lens Focal Length: Beam size at lens:
Numeral Aperture: Model Field Diameter:

Beam Path

Totally Enclosed	y	n
Limited Open	y	n
Totally Open	y	n
Potential for Stray Beams	y	n
Non-reflective surfaces in path	y	n
Flammable/combustible materials	y	n

Laser Control Area: Class 3B Class 4 Temporary (maintenance/alignment/other)

Notes:

MPE1	@time 1	@wavelength 1
MPE2	@time 2	@wavelength 2
MPE3	@time 3	@wavelength 3

Nominal Hazard Zone

Direct Beam _____ @MPE _____

Lens on Laser _____ @MPE _____

Diffuse Beam_____ @MPE _____

Reflectivity_____ viewing angle _____

Optical Fiber_____@MPE_____

Eyewear: Required OD1 _____@MPE_____

Eyewear: Required OD2 _____@MPE_____

Non-Beam Hazards

(When questions below are answered with a 'T', these items will require further investigation.)

Possible Airborne Contaminants

Base materials of targets:

Laser gases:

Dyes/solvents:

Class 4 laser radiation interacts with target materials in the absence of mechanical ventilation	T	F
The processes requires mode burns on plastic	T	F
The process requires periodic change of ventilation filters	T	F
Secondary containment for dye solvent reservoirs is absent	T	F
Reactive and/or toxic gases are used to generate laser radiations	T	F
Laser gases are used in a flow through mode	T	F

Potential for electrical hazards

The equipment is not listed and labeled by an independent testing lab	T	F
Employees are not authorized and qualified to work on electrical equipment	T	F
There are bare metal terminal plugs near internal power transformers	T	F
There are bare metal connections in access panels	T	F

There is no provision to discharge, short, or ground capacitors	T	F
Grounding sticks and shorting straps are no in good condition	T	F
There is no emergency ‘off’ switch in the laser electrical circuit	T	F

Potential for exposure to plasma or collateral radiation

The laser has high voltage in excess of 5kV	T	F
The laser has a thyratron switch accessible during service	T	F
The process uses a carbon dioxide laser	T	F
The target material is metal	T	F
The discharge tube is accessible and made of quartz	T	F
The output of the flash lamp is accessible	T	F
The laser is operated with interlocks defeated and protective housings removed	T	F

Potential for noise exposure

The laser is a pulsed excimer laser	T	F
The laser is transversely excited atmospheric (TEA) carbon dioxide laser	T	F
The laser is used to dissociate gas molecules	T	F

Notes: