Lab Inspection Form

Date: _____

Location: _____

Inspected by: _____

Lab owner: _____

Does this lab contain:

Radiation hazards? Yes No
Biological Agents? Yes No
Lasers? Yes No
Hoods? Yes No How many?
Eye wash? Yes No
Safety shower? Yes No
Is there a proper hazard notice located at entrance? Yes No
Are evacuation signs posted near lab exit? Yes No
Are there TAL restricted activities? Yes No
Is contact information posted outside room? Yes No

☐ **N/A** **I. Chemical Inspection**

1. Are reasonable security measures being followed in the lab area? Y N
2. Are two exits for the lab area (if necessary)? Y N
3. No eating, drinking, smoking, handling contact lenses, applying cosmetics, or storing human food in lab: Y N
4. Security
    a. Was the door locked when EHS arrived? Y N
    b. If the door was unlocked, was someone present in the lab? Y N
5. Are work areas and/or bench tops clean? Y N
6. Are pathways clear of obstructions? Y N
7. Waste management
    a. Are waste receptacles present? Y N
    b. Is there any storage of boxes, old equipment, etc. in lab: Y N
    c. Are lab personnel aware of trash procedures? Y N

8. Equipment Maintenance
    a. What kind of equipment is present in the lab?
    b. Is equipment regularly inspected? Y N
    c. Are written records of equipment maintenance and inspections kept readily available? Y N
    d. Is mechanical equipment furnished with guards? Y N
    e. Is shielding in use? Y N
    f. Are there adequate covers and cover locks, where needed? Y N

9. Computers
    a. Is there a computer in the lab area? Y N
    b. Is it used for lab data and results? Y N
    c. Is it networked? Y N
    d. Is any of the lab/research information restricted? Y N

10. Is glassware being used appropriately? Y N

11. Flammables
    a. Is there a flammable cabinet? Y N
    b. Are non-flammable items stored in the flammable cabinet? Y N
    c. Are flammable items stored outside the flammable cabinet? Y N
    d. Does signage restrict open flames? Y N

12. Are plugs grounded and in good condition? Y N

13. Gas cylinders
    a. Are compressed gas cylinders are stored upright? Y N
    b. Are compressed gas cylinder caps in place if not connected to equipment? Y N

c. Are compressed gas cylinders mounted and/or chained in place? Y N

d. Are compressed gas cylinders stored away from ignition sources? Y N

14. Hoods

    a. Hood type and size (if known):

    b. Have hoods been surveyed recently? (See EHS for data)

    c. Is there a hood flow monitor with alarm? Y N

15. Documentation

    a. Does the lab have access to the MSDS for each chemical used or stored?

    b. Is the location/access of MSDS explained or displayed? Y N

    c. Is chemical inventory tracked through CEMS? Y N

    d. Are lab safety plans, SOP's, training documentation, etc. in place and available? Y N

16. Personal Protection Equipment

    a. Is PPE designated by signage? Y N

    b. Is there evidence of PPE being used: Y N

17. Cleanup procedures

    a. Is a spill containment kit in the lab? Y N

    b. Is it prominently located? Y N

18. Unwanted chemicals:

    a. Are there unwanted chemicals in the lab? Y N

    b. If so, are they labeled properly? Y N

    c. Are there lids on all waste containers? Y N

19. Chemical storage

    a. Are hazardous chemicals labeled properly (Including special hazards, identification of contents, etc)? Y N

b. Are chemicals stored properly (Including segregation and secondary containers, etc)? Y N
c. Are proper precautions utilized for hazardous chemicals? Y N
d. Is bench top storage restricted? Y N
e. Are all chemicals stored below six feet? Y N

20. If animals are evident in lab, is there proper signage for allergens, hazards, etc?
21. **NOTES:**

Agents in use: _____

Lab type: Research Teaching Graduate Undergraduate

☐ **N/A** **II. Biological Inspection**

1. Biosafety Level 1-Standard Microbiological Practices
    a. Lab access is limited/restricted when experiments or work with cultures/specimens are in progress. Y N
    b. Lab personnel wash hands after handling viable materials, removing gloves, or leaving lab. Y N
    c. No eating, drinking, smoking, handling contact lenses, applying cosmetics, or storing human food in lab. Y N
    d. Contact lens users wear safety glasses, goggles, or face shields. Y N
    e. Food is stored outside lab in designated cabinets/refrigerators. Y N
    f. Mechanical pipetting devices are used (no mouth pipetting) . Y N
    g. Sharps handling policies/practices in place. Y N
    h. Procedures are in place to minimize splashes/aerosols. Y N
    i. Work surfaces are decontaminated at least daily and/or at completion of work. Y N
    j. Work surfaces are decontaminated after any spill/splash of viable material. Y N
    k. Cultures/stocks/regulated wastes are decontaminated by approved method (e.g., autoclaving) before disposal. Y N
    l. Materials decontaminated outside of lab are transported in durable, leak-proof, closed containers. Y N
    m. Biohazard signage posted at lab entrance when infectious agents are present (signage lists agents and PI name/phone) . Y N
    n. Insect/rodent control program in effect. Y N
    o. Lab workers are aware of and enforce security restrictions to the lab at all times. Y N

2. Biosafety Level 1-Safety Equipment
    a. Lab coats, gowns, and uniforms are worn. Y N
    b. Gloves are worn if skin on hands is broken or has rash. Y N
    c. Safety glasses are worn when performing procedures that pose a splash risk outside of a BSC. Y N

3. Biosafety Level 1-Laboratory Facilities
    a. Lab has adequate lighting. Y N
    b. Lab has doors for access control. Y N
    c. Lab has a sink for hand washing. Y N
    d. Lab designed to be easily cleaned (e.g., no carpets/rugs, spaces between cabinets/equipment/furniture are accessible, etc.) . Y N
    e. Bench tops are impervious to water and resistant to heat, organic solvents, acids, alkalis, and disinfectants. Y N
    f. Lab furniture/equipment is suitable for intended use/loads. Y N
    g. Lab windows that open to the outside are fitted with fly screens. Y N

4. Biosafety Level 2 ONLY-Standard Microbiological Practices
    a. Disinfectants are labeled for agents being used. Y N

5. Biosafety Level 2 ONLY-Special Practices
    a. Personnel at risk of acquiring infections or for whom infections may have serious consequences are denied access to lab. Y N
    b. All personnel are advised of potential hazards prior to entering/working in lab. Y N
    c. Posted biohazard signage includes biosafety level, required immunizations, required PPE, and required lab exit procedures. Y N
    d. Lab personnel are appropriately immunized against or tested for the agents being used (e.g., HBV vaccinations, TB skin test) . Y N
    e. Baseline and periodic serum samples are collected/stored as required. Y N

f. Lab director has incorporated biosafety procedures into lab SOP's or has adopted/prepared a lab-specific Biosafety Manual. Y N
g. Lab personnel have read and follow biosafety procedures/practices. Y N
h. Lab personnel are trained on the potential hazards, precautions to prevent exposures, and evaluation procedures. Y N
i. Lab personnel receive annual refresher training and/or additional training as necessary. Y N
j. Needle/syringe use is kept to absolute minimum. Y N
k. Only needle-locking syringes or syringes with permanently affixed needles are used for injection/aspiration of infectious materials. Y N
l. Syringes that "re-sheath" the needle or needless systems are used when appropriate. Y N
m. Disposable needles are not bent, sheared, broken, recapped, removed from disposable syringes, or otherwise manipulated prior to disposal. Y N
n. Plastic ware is substituted for glassware whenever possible. Y N
o. Sharps containers are labeled, conveniently located, and puncture resistant. Y N
p. Non disposable sharps containers are hard-walled and leak proof. Y N
q. Broken glassware is only handled by mechanical means. Y N
r. Sharps containers are decontaminated (e.g., autoclaved) prior to disposal or reprocessing. Y N
s. Cultures, tissues, specimens, or infectious wastes are kept in covered, leak-proof containers during collection, handling, processing, storage, transport, or shipment. Y N
t. Lab equipment and work surfaces decontaminated on routine basis with effective disinfectant. Y N
u. Lab equipment is decontaminated prior to sending it for repair/maintenance, or packaging it for shipment. Y N
v. Spills/accidents are immediately reported to the lab director. Y N
w. Animals not involved in work are not allowed in lab. Y N

6. Biosafety Level 2 ONLY-Safety Equipment
    a. Lab coats, gowns, or uniforms are removed and left in lab before leaving for non-lab areas. Y N
    b. Protective clothing is either disposed of in the lab or laundered on-site by the institution. Y N
    c. Gloves are worn if hands are at risk on contacting infectious materials, infected animals, or contaminated surfaces/ equipment. Y N
    d. Gloves are not worn outside lab or when touching "clean" surfaces (e.g., telephones, keyboards, elevator buttons, etc.) . Y N
    e. Gloves are disposed of when overtly contaminated, work with infectious materials is completed, or integrity is compromised. Y N
    f. Disposable gloves are not reused. Y N
    g. Goggles or face shield used when performing procedures that pose a splash risk outside of a BSC. Y N
    h. Class II BSC or equivalent are used for procedures that have potential to create aerosols or splashes. Y N
    i. Class II BSC or equivalent are used for work with high concentrations ($>10_8$ cfu/ml) or large volumes (>1 liter) of infectious agent. Y N

7. Biosafety Level 2 ONLY-Laboratory Facilities
    a. Labs where "select agents" are used or stored have lockable doors. Y N
    b. No fabric upholstered/covered furniture or chairs. Y N
    c. Labs are located away from public areas. Y N
    d. BSC not located near doors or windows that can be opened. Y N
    e. Eyewash station and safety shower is readily available. Y N

8. **NOTES:**

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☐ N/A **III. Laser Inspection**

1. Laser-Specific Data
    a. CEMS inventory number? Y N
    b. Location in lab: _____
    c. Type: _____
    d. Manufacturer: _____
    e. Make: _____
    f. Model: _____
    g. Class: _____
    h. Serial number: _____
    i. Wavelengths (nm): _____
    j. Output (max/used): _____ W or J
    k. Pulsed? Y N If yes:
        i. Pulse energy (J): _____
        ii. Pulse length (s): _____
        iii. Repetition rate (Hz): _____
        iv. Pulse time envelope (s): _____
    l. Beam diameter (mm): _____
    m. Beam divergence (mrad): _____
    n. Output irradiance *E* (W/cm_2): _____
    o. MPE: _____
    p. Minimum OD: _____
    q. Laser Q-switched or mode locked: _____
    r. Laser active or inactive: _____

2. Warning signs and labels:
    a. Are warning signs properly posted at entrances? Y N
    b. What type of signs are posted? _____
    c. Is room security adequate? Y N
    d. Is there a door interlock system? Y N
    e. Is there a laser status indicator outside room? Y N
    f. Is there a laser class label in place? Y N
    g. Is there a laser hazard label in place? Y N
    h. Is there a laser aperture label in place? Y N
    i. Is there a key control for on/off switch (class 3b and 4 only) ? Y N
    j. Is the key removed when laser is off? Y N
    k. Is the key secured when not in use? Y N
    l. Is there an activation indicator on laser? Y N
    m. Is there a power indicator on laser? Y N
    n. Are there protective housing interlocks? Y N
    o. Are the protective housing interlocks functioning? Y N
    p. Is the protective housing intact: Y N If no:
        i. Is access restricted and the area controlled? Y N
        ii. Is PPE available? Y N
        iii. Are there barriers, curtains, beam stops, etc? Y N
        iv. Is this addressed in SOP? Y N

3. Laser unit safety controls:
    a. Is there a beam shutter present? Y N
    b. Is the beam shutter functioning? Y N
    c. Is there a beam power meter? Y N
    d. Is emergency shutoff available? Y N

4. Is the manufacturer's operational manual available? Y N
5. Is the laser sublicense up to date and available? Y N
6. Is the SOP written, available, and up to date (last revision date:)? Y N
7. Have all users and sublicensees completed initial training? Y N
8. Have all applicable users and sublicensees completed annual training? Y N
9. Is documentation of training maintained in the laser safety program notebook? Y N
10. Are authorized users and training dates listed? Y N
11. Is documentation of training available? Y N
12. Does training include general safety precautions & NHZ descriptions? Y N
13. Does it outline personal protective equipment requirements and use (including approved eyewear)? Y N
14. Does it describe start-up, use, and shut down procedures? Y N
15. Does it describe alignment procedures?
16. Does it include emergency procedures? Y N
17. Are current laser safety guidelines posted? Y N
18. Is laser safety policy manual available? Y N
19. Is all documentation maintained in the laser safety program notebook? Y N
20. Are all injuries reported to PI and EHS? Y N
21. Are all injuries investigated by LSO? Y N
22. Is the laser secured to table? Y N
23. Are laser optics secured to prevent stray beams? Y N
24. Is the laser at eye level? Y N
25. Is the beam enclosed? Y N
26. Bare beam barriers in place? Y N
27. Are beam stops in place? Y N
28. Can you view the beam remotely? Y N
29. Is the beam condensed or enlarged? Y N

30. Is the beam focused? Y N
31. Is the beam intensity reduced through filtration? Y N
32. Are fiber optics used? Y N
33. Are the windows in the room covered? Y N
34. Are reflective materials kept out of beam path? Y N
35. Is beam management documented? Y N
36. Is there any physical evidence of stray beams? Y N
37. If laser is a class 4, is there a diffuse reflection hazard? Y N
38. Is the entire room/lab designated as a laser control area? Y N
39. Is the beam visible? Y N

40. Other Laser Safety Measures:
    a. Is an eye exam required? Y N
    b. If required, are eye exams completed? Y N
    c. Is there proper laser eye protection available? Y N
    d. Is the required manufacturer information for eyewear maintained? Y N
    e. Is eyewear inspected and cleaned periodically? Y N
    f. Is proper skin protection available? Y N
    g. Is there eating, drinking, smoking, handling contact lenses, applying cosmetics, or storing human food in the lab? Y N

41. Non Beam Hazards:
    a. Is toxic laser media in use? Y N
    b. Is a fume hood available if needed? Y N
    c. Are cryogens in use? Y N
    d. Are compressed gasses in use? Y N
    e. Is there a high voltage power hazard? Y N

f. Are optical tables properly grounded? Y N

g. Is there a collateral radiation hazard? Y N

h. Is there an explosion hazard? Y N

i. Is there a fire hazard? Y N

j. Are there any airborne contaminant hazards? Y N

k. Is there adequate housekeeping? Y N

l. Is there any LGAC production? Y N

m. **NOTES:**

IV. Security Issues

V. Physical Hazards
