

# Laboratory Safety Audit Form (Discipline Level)



|                               |              |             |
|-------------------------------|--------------|-------------|
| <b>Background Information</b> |              |             |
| Building Name:                | Room Number: | Department: |
| PI Name:                      | Email:       | Phone:      |
| Inspector names:              |              |             |
| Inspector's Designation:      |              |             |
| Inspection date:              |              |             |

| SI                         | Question  | Yes | No | NA | Suggestions | Corrected on |
|----------------------------|---|-----|----|----|-------------|--------------|
| <b>Mandatory Questions</b> |   |     |    |    |             |              |
| 1.                         | Are assessment of hazards conducted for all equipment and processes?  |     |    |    |             |              |
| 1.                         | Has lab specific safety training been completed and documented?   |     |    |    |             |              |
| 2.                         | Are there any instruments/electrical equipment (AC, UPS etc.) running 24x7?   |     |    |    |             |              |
| 3.                         | If Yes to above question are all safety measures in place.  |     |    |    |             |              |
| 4.                         | Are the area below and around Indoor AC Units clear of combustible materials?   |     |    |    |             |              |
| 5.                         | <b>Does the Lab has ALL the license/permission required for operation of all the equipment in the lab?*</b>   |     |    |    |             |              |
| 6.                         | Are compressed gas cylinders secured with double chains to prevent them from falling or tipping?  |     |    |    |             |              |
| 7.                         | Are gas cylinder valve protection caps in place for gas cylinders not in active use?  |     |    |    |             |              |
| 8.                         | Are incompatible compressed gas cylinders in storage segregated?  |     |    |    |             |              |
| 9.                         | Whether the lab has any instrument such as oven, autoclave etc whether they are kept away from explosive items and cylinders of Oxygen, Hydrogen Gas or any flammable liquids |     |    |    |             |              |
| <b>Administrative Plan</b> |   |     |    |    |             |              |
| 10.                        | Has the Lab Prepared and Submitted Lab Safety Manual?   |     |    |    |             |              |
| 11.                        | Do all lab staff know when to report accidents, incidents, or near-misses?  |     |    |    |             |              |
| 12.                        | Does all the lab user studied the safety guidelines and signed the declaration form available on the safety website?  |     |    |    |             |              |
| 13.                        | Has the lab obtained clearance from PIC-electrical for electricity load design?   |     |    |    |             |              |
| <b>Signage</b>             |   |     |    |    |             |              |
| 14.                        | Is a caution sign posted on the front door?   |     |    |    |             |              |
| 15.                        | Are emergency contact numbers for lab staff, including after-hours emergency contact numbers, posted within the laboratory?   |     |    |    |             |              |
| <b>General Questions</b>   |   |     |    |    |             |              |
| 16.                        | Lab is maintained secure; door is locked when no one is in lab.   |     |    |    |             |              |
| 17.                        | Work and storage areas clear of clutter; access to exit is unrestricted.  |     |    |    |             |              |

|                        |   |  |  |  |  |  |
|------------------------|---|--|--|--|--|--|
| 18.                    | No food or drinks found in labs.  |  |  |  |  |  |
| 19.                    | First Aid Kit is available and well stocked   |  |  |  |  |  |
| 20.                    | Fire extinguisher is available and correct type, visible, accessible, hung on the wall, not obstructed, or at proper location.  |  |  |  |  |  |
| 21.                    | Eye Wash, Safety showers are available and in working condition. If shared, location is known to all lab users  |  |  |  |  |  |
| 22.                    | Areas around pull alarms, and emergency eyewashes/showers clear and accessible?   |  |  |  |  |  |
| 23.                    | Personal protective equipment (PPE) (i.e. lab coats, nitrile gloves, safety glasses, etc.) are available in labs  |  |  |  |  |  |
| 24.                    | Appropriate clothing and shoes (no shorts or sandals) worn by everyone in lab.  |  |  |  |  |  |
| 25.                    | Floors dry and free of slip hazards?  |  |  |  |  |  |
| 26.                    | Extension cords only used temporarily, and power strips not daisy-chained together?   |  |  |  |  |  |
| 27.                    | Not using Exposed wiring or electrical cords in poor condition  |  |  |  |  |  |
| 28.                    | Are building electrical panels accessible?  |  |  |  |  |  |
| 29.                    | Has the lab space been checked for insect/animal infestation?   |  |  |  |  |  |
| 30.                    | No Defective plumbing, faucet, or sink.   |  |  |  |  |  |
| 31.                    | Is the lab adequately organized, orderly and clean to provide sufficient work space for operations without spills, accidents and other preventable incidents?                 |  |  |  |  |  |
| 32.                    | Does the laboratory have access to chemical/biological spill kits?  |  |  |  |  |  |
| 33.                    | Personnel are trained to wash hands before leaving work area  |  |  |  |  |  |
| <b>Hazardous waste</b> |   |  |  |  |  |  |
| 34.                    | Waste containers are in good condition (not leaking, rusted, bulging or damaged).   |  |  |  |  |  |
| 35.                    | Each container is marked with label of IIT Indore and type of waste   |  |  |  |  |  |
| 36.                    | Waste containers are kept closed unless adding waste.   |  |  |  |  |  |
| 37.                    | Waste containers storing liquid hazardous waste at or near sinks and drains are stored within secondary containment.  |  |  |  |  |  |
| 38.                    | Secondary containment is in good condition (free of cracks, gaps and impervious to leaks).  |  |  |  |  |  |
| 39.                    | Sharps are disposed in a proper container that is kept closed unless waste is being added.  |  |  |  |  |  |
| 40.                    | Flammable materials requiring refrigeration are placed in explosion-proof or flammables refrigerators only?   |  |  |  |  |  |
| 41.                    | Biohazardous waste in red bags in hard-sided container which is labeled with Universal Biohazard label on the top and lateral sides (must be labeled on all 4 sides and top)? |  |  |  |  |  |
| 42.                    | Piranha solution or other hydrogen peroxide-containing material in non-vented container, or mixed with other waste  |  |  |  |  |  |
| 43.                    | Contaminated material in regular trash.   |  |  |  |  |  |
| <b>Chemical Safety</b> |   |  |  |  |  |  |
| 44.                    | Fume hood free of clutter and stored chemicals.   |  |  |  |  |  |
| 45.                    | Appropriate labels are found on all hazardous chemical containers.  |  |  |  |  |  |
| 46.                    | Shelves and chemical containers in good condition (no leaks, rust).   |  |  |  |  |  |
| 47.                    | Are all chemical containers closed?   |  |  |  |  |  |
| 48.                    | Are opened peroxide forming compounds labeled with the date they were opened and an expiration date?  |  |  |  |  |  |

|                                    |   |  |  |  |  |  |
|------------------------------------|---|--|--|--|--|--|
| 49.                                | Is the lab free of chemicals that are old and no longer needed?   |  |  |  |  |  |
| 50.                                | Are fume hoods being used properly?   |  |  |  |  |  |
| 51.                                | Corrosive or especially hazardous materials stored above eye level?   |  |  |  |  |  |
| 52.                                | Mercury containing bottle or device has no or insufficient secondary containment.   |  |  |  |  |  |
| 53.                                | Proper heating mantles are being used   |  |  |  |  |  |
| 54.                                | Are the lab users trained to clean up spills?   |  |  |  |  |  |
| <b>Biological Safety</b>           |   |  |  |  |  |  |
| 55.                                | Biological materials are not stored in hallways or chase ways in unlocked freezers or refrigerators.                      |  |  |  |  |  |
| 56.                                | Disinfectants are on hand for sanitizing bench tops and treating spills.  |  |  |  |  |  |
| 57.                                | Is biohazardous waste autoclaved in a timely manner?  |  |  |  |  |  |
| 58.                                | Does the lab has its Biohazard Level identified?  |  |  |  |  |  |
| <b>Mechanical Safety</b>           |   |  |  |  |  |  |
| 59.                                | Is laboratory equipment with potential hazards routinely inspected and maintained or serviced as recommended?             |  |  |  |  |  |
| 60.                                | Are all points of operation, rotating components, and other moving parts of machinery properly guarded to prevent injury? |  |  |  |  |  |
| 61.                                | Are all hazardous pieces of machinery mounted or secured to prevent movement or tipping?                                  |  |  |  |  |  |
| <b>Radiation Safety</b>            |   |  |  |  |  |  |
| 62.                                | Is the lab equipped with special safety gears such as LASER goggles, lead gloves etc.                                     |  |  |  |  |  |
| 63.                                | Are the labs monitoring exposures using any type of dosimeters?   |  |  |  |  |  |
| <b>Noise Safety</b>                |   |  |  |  |  |  |
| 64.                                | Are there equipment that creates noise above 85 dB?   |  |  |  |  |  |
| 65.                                | Is the lab equipped with ear muffs, head phones etc.?   |  |  |  |  |  |
| <b>Cryogenic Safety</b>            |   |  |  |  |  |  |
| 66.                                | Is the lab equipped to work with cryogenic equipment?   |  |  |  |  |  |
| <b>Airborne Particulate Safety</b> |   |  |  |  |  |  |
| 67.                                | Has the lab addressed the issue of airborne particles generated from any instrument?                                      |  |  |  |  |  |

\* Please attach a copy of the license/permission

**Undertaking by concern laboratory staff**

I will ensure that all required safety procedure and norms for the operations of the laboratory will be followed in the laboratory.

**Signature of concern lab staff with date**

**Undertaking by concerned faculty in-charge of the laboratory/center**

I also, ensure that all required safety procedure and norms for the operations of the laboratory is will be followed in the laboratory.

**Signature of concern faculty in-charge with date**

**Decision of the discipline safety committee**

Laboratory is allowed for the operation.

OR

Laboratory needs to improve its safety preparedness before starting operation.

**Signature of concern discipline safety committee with date**

**Signature of the Head of the discipline**

**Submitted to Institute lab safety officer for record and necessary follow-up**

**Instructions for Inspectors**

1. Please take print out of this form before inspection. Fill out the respective columns and sign after inspection is complete.
2. After inspection is complete please email a scanned copy of filled out form with attached documents (If any) to Lab Safety Officer at labsafety@iiti.ac.in.
3. Please assess all the questions that are relevant to that lab. For example any lab (eg. electrical, mechanical etc.) containing chemical should answer all the questions related to chemical safety.
4. If any of Mandatory Questions answer is NO, the lab cannot be given permission to operate.