

**The University of Texas at Arlington
Environmental Health & Safety (EH&S)
272-2185**

Laboratory Safety Evaluation Checklist - Biological

Date:		EH&S Personnel:	
Department:		Building:	
Principal Investigator:		Room:	
Contact:		Phone:	

**C = Compliant NC = Non-Compliant NCC = Non-Compliant Critical
Requirements that must be met to ensure regulatory compliance.**

General Safety – “Chemical-Free Area”	C	NC	NCC	Comments/Notes
1. Evidence of eating, drinking, handling contact lenses, applying cosmetics, storing food for human consumption, food preparation, and/or dish washing was not found in the "Hazardous Area".				
2. “Chemical-Free Area” signs and “Hazardous Area” signs are posted to clearly identify these areas of the laboratory.				
3. Borders for the Designated "Chemical-Free Area" are clearly marked with tape or other appropriate means.				
4. Evidence of chemical use/storage in the "Chemical-Free Area" is not found.				
5. Waste receptacle marked for "non-laboratory trash only" is present in the "Chemical-Free Area".				
6. If any small appliances (microwaves, coffee makers, etc.) are present in the "Chemical-Free Area", written permission in accordance with Handbook of Operating Procedure 5-310 is available.				

Chemicals	C	NC	NCC	Comments/Notes
1. There is no evidence of lab personnel eating, drinking or applying cosmetics in the lab.				
2. Principal Investigator has completed annual chemical inventory - chemical list is maintained/current.				
3. All chemicals containers and gas cylinders barcoded.				
4. Peroxide forming chemicals are dated when received and opened, and not stored beyond their expiration date.				
5. Controlled substance security is adequate to prevent unauthorized use, access or diversion.				
6. The Class D fire extinguisher is unobstructed.				
7. Secondary containers, other than ones for immediate use, are labeled with the identity of their contents and the hazards associated with their contents.				
8. Breakable chemical containers should not be stored on the floor outside of a secondary container.				
9. Chemical containers are kept closed if not in use.				
10. Original container labels on chemical containers are not removed or defaced.				
11. Flammable storage cabinets being used in the laboratory are approved and labeled properly.				
12. Flammable solvents requiring refrigeration are properly stored in flammable storage or explosion proof refrigerators.				
13. The amount of flammables outside of approved flammable storage cabinets/refrigerators is minimized.				
14. Chemicals are stored by hazard class, based on compatibility, and in accordance with SDS.				
15. Liquid Corrosives are stored below eye level (5ft.)				
16. Glassware used at pressures other than ambient are taped or shielded.				
17. Compressed gas cylinders are secured with the safety cap in place when cylinders are not in use.				

Chemical Waste	C	NC	NCC	Comments/Notes
1. Chemical waste is located in the immediate vicinity of generation and under supervision of the person who generated it.				
2. Each waste container has a properly filled out EH&S waste tag attached.				
3. Containers are clearly labeled with the contents of the container and the words "Hazardous Waste".				
4. Original labels on containers used for waste are defaced.				
5. Waste Containers are compatible with their contents.				
6. Waste Containers are closed unless actively receiving waste.				
7. Waste Containers are leak proof (no signs of leaks).				
8. Liquid waste containers are properly stored in secondary containment.				
9. Waste secondary containment is appropriate and in good condition.				
10. Waste is properly managed (no evidence of drain disposal, waste found in regular trash, etc.)				
11. Waste containers are not in need of pickup.				
12. Incompatible waste stored in separate secondary containers—if leaking, the wastes could not react.				
13. Broken glassware is deposited into puncture resistant containers and only broken glass is present.				

Sharps	C	NC	NCC	Comments/Notes
1. Biological and non-biological sharp containers labeled properly.				
2. There is no evidence of bent, re-capped, or clipped needles.				
3. Sharps containers are not more than ¾ full.				
4. Requests for sharps removal are submitted to EH&S via CEMS				

Personal Protective Equipment	C	NC	NCC	Comments/Notes
1. The appropriate personal protective equipment (PPE) is available in the laboratory.				
2. Appropriate PPE is being worn by occupants (lab coat, safety glasses, gloves. No open-toed shoes, sandals, flip-flops, etc.)				
3. The appropriate personal protective equipment in good condition and being stored properly.				

Engineering Controls	C	NC	NCC	Comments/Notes
1. Ultraviolet (UV) light is turned off while Biological Safety Cabinet (BSC) is in use.				
2. Waste container is located inside BSC to minimize movement through air barrier during use.				
3. Objects stored inside Biological Safety Cabinet must be minimized and kept away from air-intake grilles to ensure proper airflow to protect the user.				
4. Activities around BSC that will disturb cabinet's airflow are restricted (e.g. entry, egress, walking traffic?)				
5. Interior work surface decontamination chemical(s) present (70% alcohol is usually suitable).				
6. Fume hood is being used at a proper sash height.				
7. Emergency showers are unobstructed and easily accessible.				
8. Eyewashes are unobstructed and easily accessible.				

Physical Hazards	C	NC	NCC	Comments/Notes
1. Belt driven vacuum pumps are protected with belt guards, properly maintained, and stored away from flammable chemicals and combustible material.				

Autoclave	C	NC	NCC	Comments/Notes
1. Proper chemicals for disinfection are used such as EPA registered disinfectants (following manufacturer's				

instructions for use) and/or a fresh 1:10 solution of bleach in water, or a solution of 70% by volume 2-propanol).				
2. Biohazardous waste is being stored in an appropriate waste container and labeled properly.				
3. Microbiological waste treated in autoclaves is logged on the "Autoclave Waste Treatment Log" form supplied by EH&S including date of treatment, amount, method, name, and initials of person treating waste.				
4. Steam Chemical Integrator is placed with each waste load to be autoclaved.				
5. Thermal autoclave tape is placed across the biohazard symbol on the autoclave bag before treatment.				
6. Waste to be autoclaved is treated at a minimum of 121 degrees C, 15 psi pressure for 30 minutes for liquid waste or 55-60 minutes for solid waste.				
7. Label is affixed to autoclaved waste that states, "Treated in accordance with the provisions of 25 TAC § 1.136(a)" and placed inside another opaque bag to be placed in regular trash.				
Special Waste				
1. Liquid biohazardous waste (e.g. human blood, body fluids, tissue/cell cultures) containers have biohazard sign attached.				
2. Liquid microbiological waste is decontaminated with an appropriate chemical disinfectant for a sufficient contact time before disposed of by pouring to the sanitary sewer.				
3. Pathological waste is incinerated. Pathological waste includes animal carcasses, body parts, organs, tissue.				
4. Pathological waste is kept frozen and double-bagged until incinerated.				
Stericycle				
1. Stericycle boxes are used for solid biohazardous waste: used gloves, paper towels, unbroken disposable materials.				
2. Stericycle box should not be filled more than 3/4 full or exceed 43 LBS.				
3. Stericycle box is properly closed with the red plastic liner not visible when ready for disposal.				
BSL-2				
1. Access to laboratory is limited when experiments are in progress.				
2. Registration of work involving potentially infectious biological agent(s) has been done by completing the Human Pathogen Registration (HPR) and submitting it to EH&S.				
3. The Human Pathogen Registration Update (HPRU) form has been completed to update any existing HPR registration by describing any changes to a project and HPRU has been submitted to EH&S.				

Fire/Life Safety	C	NC	NCC	Comments/Notes
1. Good housekeeping practices are followed in the laboratory, storage of combustibles such as cardboard boxes and paper are kept to a minimum.				
2. Lab doors are kept closed to provide a fire and smoke barrier.				
3. Exits and walkways must be kept clear to ensure means of egress. There needs to be a clear path of 36 inches.				
4. Ceiling tiles are in place and undamaged				
5. Combustibles are not stored within 24" of the ceiling in non-sprinklered buildings or within 18" of the sprinkler head drop distance from the ceiling.				
6. Fire extinguisher is not obstructed.				

Electrical Safety	C	NC	NCC	Comments/Notes
1. Permanent use of extension cords has been eliminated. No multi-plug adapters are used or power strips plugged into other power strips.				
2. Electrical cords are appropriately used (i.e. none are routed above the ceiling tiles or across the floor where				

they could be a tripping hazard).				
3. Electrical cords are in good condition. (i.e. none have exposed wiring or cracked, brittle, or frayed insulation).				
4. There is clear access to the electrical breaker panel.				

Comments

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