

Department:	Laboratory and Blood Bank (Microbiology)		
Document:	Internal Policy and Procedure		
Title:	Safety Cabinet		
Applies To:	All Laboratory Staff		
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1. PURPOSE:

- 1.1 To establish system and set responsibilities for work.
- 1.2 To elucidate the accurate operating procedure for Safety Cabinet machine.

2. DEFINITIONS:

- 2.1 N/A

3. POLICY:

- 3.1 The accurate operating procedure for Safety Cabinet.

4. PROCEDURE:

4.1 Start-up:

- 4.1.1 Turn off UV light If opened.
- 4.1.2 Slowly raise the sash until the TPI engages at the proper height.
- 4.1.3 Confirm the sash is at its proper height by examining the sash indicator decal located on the left side of the work area.
- 4.1.4 Turn on fluorescent light and cabinet blower.
- 4.1.5 Check the return air grilles for obstructions, and note the pressure gauge reading.
- 4.1.6 Allow the cabinet to operate unobstructed for 5 minutes.
- 4.1.7 Wash hands and arms thoroughly with germicidal soap.
- 4.1.8 Wear a long-sleeved lab coat with knit cuffs and over-the-cuff rubber gloves.
- 4.1.9 Use protective eyewear.
- 4.1.10 Wear a protective mask if appropriate.

4.2 Wipe-Down:

- 4.2.1 Raise the sash to its fully open position (approximately 19 inches open).
- 4.2.2 Mute the alarm by depressing the "Alarm Silence" switch.
- 4.2.3 Wipe down the interior surfaces of the cabinet with 70% ethanol, or a suitable disinfectant, and allow to dry.

4.3 Loading Materials and Equipment:

- 4.3.1 Only load the materials required for the procedure.
- 4.3.2 Do not overload the cabinet.
- 4.3.3 Do not obstruct the front, side, or rear return air grilles.
- 4.3.4 Large objects should not be placed close together.
- 4.3.5 Slowly close the sash until the TPI is engaged correctly.
- 4.3.6 After loading the cabinet, wait two to three minutes to purge airborne contaminants from the work area.

4.4 Work Techniques:

- 4.4.1 Keep all materials at least 4 inches inside of the sash, and perform all contaminated operations as far to the rear of the work area as possible.
- 4.4.2 Segregate all clean and contaminated materials in the work area.

- 4.4.3 Arrange materials to minimize the movement of contaminated materials into clean areas.
- 4.4.4 Keep all discarded contaminated material to the rear of the work area.
- 4.4.5 Avoid moving materials or the operator's hands and arms through the front access opening during use.
- 4.4.6 Avoid the use of an open flame.
- 4.4.7 Use proper aseptic technique.
- 4.4.8 Avoid using techniques or procedures that disrupt the airflow patterns of the cabinet.
- 4.4.9 If there is a spill or splatter during use, all objects in the cabinet should be surface decontaminated before removal.
- 4.4.10 Thoroughly disinfect the working area of the cabinet WHILE IT IS STILL IN OPERATION this will prevent the release of contaminants from the cabinet.

4.5 Final Purging:

- 4.5.1 Upon completion of work, the cabinet should be allowed to operate for two to three minutes undisturbed, to purge airborne contaminants from the work area.

4.6 Unloading Materials and Equipment:

- 4.6.1 Objects in contact with contaminated material should be surface decontaminated before removal from the cabinet.
- 4.6.2 All open trays or containers should be covered before being removed from the cabinet.

4.7 Wipe-Down:

- 4.7.1 Wipe down the interior surfaces of the cabinet with 70% ethanol, or a suitable disinfectant, and allow to dry.
- 4.7.2 Periodically lift the work surface and wipe down the area beneath it.
- 4.7.3 Inspect and clean the towel catch located at the rear of the work area, beneath the work pan.
- 4.7.4 Dispose of rubber gloves appropriately, and have lab coat laundered properly.
- 4.7.5 Wash hands and arms thoroughly with germicidal soap.

4.8 Shutdown:

- 4.8.1 Turn off the fluorescent light and cabinet blower, close the sash, and turn on the UV light if appropriate.

4.9 Routine Maintenance Schedule:

4.9.1 Weekly:

- 4.9.1.1 Using 70% ethanol, or a suitable disinfectant, surface disinfect the inside of the cabinet, and the work surface.
- 4.9.1.2 Using an appropriate glass cleaner, clean the sash and the surface of the UV lamp.
- 4.9.1.3 Operate the cabinet blower, noting the pressure reading in an operational log.

4.9.2 Monthly:

- 4.9.2.1 Using a damp cloth, clean the exterior surfaces of the cabinet, particularly the front and top of the cabinet, to remove any accumulated dust.
- 4.9.2.2 Disinfect and lift the work surface. Surface disinfect the lower plenum with a solution of 70% ethanol, or a suitable disinfectant. Check the towel catch for retained materials.
- 4.9.2.3 Check all service valves, if so equipped, for proper operation.
- 4.9.2.4 All weekly activities.

4.9.3 Annually:

- 4.9.3.1 Have the cabinet recertified by a qualified certification technician.
- 4.9.3.2 Replace the UV lamp.
- 4.9.3.3 All monthly activities.

5. MATERIAL AND EQUIPMENT:

- 5.1 N/A

6. RESPONSIBILITIES:

- 6.1 All Microbiology staffs.

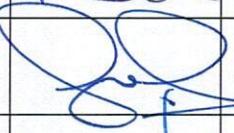
7. APPENDICES:

7.1 Biological Safety Cabinet Maintenance Check List

8. REFERENCES:

8.1 User's Manual, Class II, Biological Safety Cabinets, Copyright © 2005, 2007 Laconica Corporation.

9. APPROVALS:

	Name	Title	Signature	Date
Prepared by:	Dr. Kawther M. Abdou	Consultant & Lab. Medical Director		January 05, 2025
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Reviewed by:	Dr. Tamer Mohamed Naguib	Medical Director		January 13, 2025
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Appendix 7.1 Biological Safety Cabinet Maintenance Check List

Kingdom of Saudi Arabia
Hafar Al Batin Health Cluster
Maternity and Children Hospital



المملكة العربية السعودية
الجمع الصحي بحفر الباطن
مستشفى الولادة والأطفال

BIOLOGICAL SAFETY CABINET MAINTENANCE LOG SHEET

DAILY CHECKLIST

DEPARTMENT:	MONTH:																													YEAR:	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
SURFACE DECONTAMINATION OF WORK ZONE																															
BSC POWER UP ALRM VERIFICATION																															
TECHNICIAN'S SIGNATURE:																															
WEEKLY CHECKLIST	1ST			2ND			3RD			4TH			REMARKS																		
THOROUGHLY SUFACE DECONTAMINATE THE DRAIN PAN																															
CHECK THE PAPER CATCH FOR RETAINED MATERIALS																															
TECHNICIAN'S SIGNATURE:																															

	REMARKS
Clean the exterior surface of BSC	
Clean The sach window	
Check all surface fixture for proper operation	
Technician's signature	