MSC User Checks and Logbook

Those using Microbiological Safety Cabinets (MSC) must be trained in its correct use and follow the good MSC practice set out below to ensure that it offers you and/or the environment and/or your work adequate protection.

All MSC users must check that the MSC is working properly before each use and is offering you the protection expected for the work being carried out as detailed within your associated biological risk assessment.

User checks should be recorded and any remedial actions identified carried out in a timely manner. Records must be readily available for reference by users or those maintaining the system and kept up to date.

In support of this process, Health and Safety Services have produced this logbook to provide guidance on good MSC practice, including pro forma to record user checks and any issues which should be kept in the vicinity of the MSC.

Information about additional checks that are applicable to your type of MSC may also be available in the user manual/operating instructions provided by the manufacturer or installer.

Note: If working in containment level 3 (CL3) laboratories, refer to your local work instructions or standard operating procedure regarding the specific checks for these systems.

Good MSC Practice

Any work with a biological agent that poses an infectious aerosol risk must be conducted in an MSC.

- Ensure that the MSC type is suitable for the work you are planning.
- Ensure that thorough examination and test has been completed (as indicated on the test label).
- Before you start work allow the airflows to stabilise for at least 5 minutes.
- Carry out and record regular user checks as applicable for the type of MSC (see 'MSC User Checks' on page 2).
- Report any faults and do not use if it fails the user checks.
- UV lights, where they are fitted, must not be employed unless an approved specific risk assessment is in place.
- Correct MSC function is dependent on airflows within the cabinet not being disrupted:
  - Keep clutter to a minimum.
  - Keep the amount of equipment in the cabinet to a minimum.
  - Do not use flames inside the MSC.
  - Keep grilles at the front, back and sides clear.
  - Keep lab doors shut.
  - Perform operations as close to the middle of the cabinet as possible (at least 15cm from the front opening).
  - Avoid excessive movement of materials and arms through the front of the cabinet.
  - When you remove/place, your hands into the cabinet allow the cabinet to stabilise before resuming work.
- Whenever you remove your hands from the MSC change your gloves or disinfect them before putting them back into the MSC.
- Keep the work area clean and tidy:
  - Disinfect the work surface frequently.
  - Any spills of viable biological agents within the cabinet must be immediately treated with a suitable disinfectant.
- At the end of use:
  - Disinfect the MSC.
  - Leave the MSC empty.
  - Remove and clean under the base plate where this is not fixed.
  - Switch off and close the night door (where fitted).

MSC User Checks and Logbook

User Checks and Record Log

MSC User Checks

Daily (before each use)

- Thorough examination and test (including downflow testing and Operator Protection Factor Test (OPFT)) is 'pass' status and in date.
- No obvious damage or breaches to cabinet or ductwork.
- Air velocity indicator within safe parameters.
- No visible or audible alarms indicated on the control panel. **Alarms must not be ignored**.
- Internal lighting working.
- Work area clean and tidy.
- No equipment or other items obstructing grilles.

Monthly

- Complete the Inflow Velocity Check and record in the Monthly Inflow Readings Log.

DO NOT USE the Microbiological Safety Cabinet if it fails the user checks

All failures to be recorded in the Issues Log and reported to your Supervisor / Laboratory Manager / Technical Services team

MSC User Daily Check Record Log					
School/Department					
Laboratory/Room No.					
Asset No.					
Month			Year		
Day	Checked By	Issue Y/N	Day	Checked By	Issue Y/N
1			17		
2			18		
3			19		
4			20		
5			21		
6			22		
7			23		
8			24		
9			25		
10			26		
11			27		
12			28		
13			29		
14			30		
15			31		
16					
All issues to be recorded in the Issues Log					

For all daily checks sign next to the day of the month and record any issues observed within the Issues Log (page 6).

MSC User Checks and Logbook

Guidance for Monthly Checks

In addition to the daily user checks, an inflow velocity check must be carried out at least each month to confirm that the MSC is still working effectively.

Failures must be recorded within the Issues Log (page 6) and registered with the Supervisor / Laboratory Manager / Technical Services team who will inform the relevant personnel to rectify the issue if the situation cannot be remedied locally.

Measuring Inflow Velocities

You must be trained to carry out these checks, and follow the local work instruction or standard operating procedure.

Class II MSC – Measurement and Record of Inflow Velocity

On a MONTHLY basis, measure inflow velocities using a calibrated anemometer. Record measurements on the Monthly Inflow Readings Log – see page 4.

Record "Fail" if:

- any INFLOW value is less than 0.4 m/s
- if the variation is above 20%

An MSC which falls outside of tolerance must not be used as this will not offer the protection that you need.

Class I MSC – Measurement and Record of Inflow Velocity

On a MONTHLY basis, measure inflow velocities using a calibrated anemometer. Record measurements on the Monthly Inflow Readings Log – see page 5.

Record "Fail" if:

- any value is less than 0.7 m/s or above 1.0 m/s
- if the variation is above 20%

An MSC which falls outside of tolerance must not be used as this will not offer the protection that you need.

MSC User Checks and Logbook

Monthly Inflow Readings Log – Class II MSC

School / Department			
Laboratory / Room no.		MSC Asset No.	

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

Date:	Name:

Highest Reading	Lowest Reading	Average
m/s	m/s	m/s

Within 20%	Pass/Fail

MSC User Checks and Logbook

Monthly Inflow Readings Log – Class I MSC

School / Department			
Laboratory / Room no.		MSC Asset No.	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

Date:		Name:
Highest Reading	Lowest Reading	Average
m/s	m/s	m/s
Within 20%	Pass/Fail	

MSC User Checks and Logbook

Issues Log

School / Department			
Laboratory / Room no.		MSC Asset No.	

Issue			Name		Date	
Action Taken			Name		Date	
Issue Closed?	Yes	No	Name		Date	

Issue			Name		Date	
Action Taken			Name		Date	
Issue Closed?	Yes	No	Name		Date	

Issue			Name		Date	
Action Taken			Name		Date	
Issue Closed?	Yes	No	Name		Date	

Issue			Name		Date	
Action Taken			Name		Date	
Issue Closed?	Yes	No	Name		Date	