

PROGRAM Standard Operating Procedure – Laboratory Services

Title: MIC10600 – Microbiology Laboratory Equipment	Policy Number:
Program Name: Laboratory Services	
Applicable Domain: Lab, DI and Pharmacy Services	
Additional Domain(s):	
Effective Date:	Effective Date:
Issuing Authority: Director, Health Services	Issuing Authority: Director, Health Services
Accreditation Canada Applicable Standard: N/A	

GUIDING PRINCIPLE:

The maintenance of laboratory equipment ensures it is kept in good working condition. All microbiology staff are responsible for these duties.

PURPOSE/RATIONALE:

To provide instructions for the general maintenance of all equipment in the microbiology laboratory.

SCOPE/APPLICABILITY:

This procedure applies to Medical Laboratory Technologists (MLTs) and Medical Laboratory Assistants (MLAs) maintaining equipment in the microbiology laboratory.

REAGENTS and/or MEDIA:

- Accel TB wipes
- Sterile water

SUPPLIES:

- Gauze
- Temperature charts
- FYRITE GAS analyzer

EQUIPMENT

- O₂ incubator
- CO₂ incubator
- Microbiology refrigerators
- Microbiology ultra-low freezer
- Biological safety cabinet
- Microbiology microscope

Disclaimer Message: This is a **CONTROLLED** document for internal use only. Any documents appearing in paper form are not controlled and should be checked against the electronic file version prior to use.

Step	Action
O₂ Incubator Maintenance	
1	<u>Daily Maintenance:</u> <ul style="list-style-type: none"> Record the digital reading temperature and internal thermometer temperature of the incubator on QUA40491.3
2	<u>Weekly:</u> <ul style="list-style-type: none"> Check the humidity pan. If water level is low, remove the pan and clean with Accel TB wipes. Fill with tap water and replace in the incubator and record date and initials on QUA40491.3 Result as complete in TQC
3	<u>Monthly:</u> <ul style="list-style-type: none"> Inspect the gray door gasket for any cracks or tears and record date and initials on QUA40491.3 Result as complete in TQC
4	<u>Bi-annually:</u> <ul style="list-style-type: none"> Clean interior and exterior of the incubator: Wipe with Accel TB wipes. Rinse with gauze soaked with sterile water to remove any residue and record date and initials on QUA40491.3 Result as complete in TQC

Step	Action
CO₂ Incubator Maintenance	
1	<u>Daily:</u> <ul style="list-style-type: none"> Record the digital reading temperature, internal thermometer temperature and CO₂ level of the incubator on QUA40491.7 and QUA40491.8
2	<u>Weekly:</u> <ul style="list-style-type: none"> Change the temperature charts and store used charts in the folder on the side of the incubator Check the humidity pan. If water level is low, remove the pan and clean with Accel TB wipes. Fill with tap water and record date and initials on QUA40491.7 and QUA40491.8 Result as complete in TQC
3	<u>Monthly:</u> <ul style="list-style-type: none"> Inspect the gray door gasket for any cracks or tears Perform the FYRITE CO₂ measurement. Refer to MIC10610-FYRITE Gas Analysis Job Aid and record date and initials on QUA40491.7 and QUA40491.8 Result as complete in TQC
4	<u>Bi-annually:</u> <ul style="list-style-type: none"> Clean interior and exterior of the incubator: Wipe with Accel TB wipes. Rinse with gauze soaked with sterile water to remove any residue and record date and initials on QUA40491.7 and 40491.8 Result as complete in TQC

Disclaimer Message: This is a **CONTROLLED** document for internal use only. Any documents appearing in paper form are not controlled and should be checked against the electronic file version prior to use.

Step	Action
Refrigerator Maintenance	
1	<p><u>Daily:</u></p> <ul style="list-style-type: none"> Record the digital reading temperature and the internal thermometer temperature of the refrigerator and record on QUA40491.1, 40491.2, 40491.10 and 40491.12
2	<p><u>Monthly:</u></p> <ul style="list-style-type: none"> Inspect the seal on the door gasket for any cracks or tears and record date and initials on QUA40491.1, 40491.2, 40491.10 and 40491.12 Result as completed in TQC
3	<p><u>Bi-annually:</u></p> <ul style="list-style-type: none"> Clean interior and exterior of the refrigerator: Wipe with Accel TB wipes. Rinse with gauze soaked with sterile water to remove any residue and record date and initials on QUA40491.1, 40491.2, 40491.10 and 40491.12 Result as complete in TQC

Step	Action
Biological Safety Cabinet (BSC) Maintenance	
1	<p><u>Daily:</u></p> <ul style="list-style-type: none"> Check air grilles to ensure they are unobstructed Wipe the interior surface with Accel TB wipes before use Wipe the interior surface with Accel TB wipes after use Lower the sash at the end of the evening Record date and initials on LSM30210
2	<p><u>Weekly:</u></p> <ul style="list-style-type: none"> Using an appropriate glass cleaner, clean the sash and record on LSM30210 Operate the cabinet blower and record the percent filter life remaining on LSM30210 Result as complete in TQC
3	<p><u>Bi-annually:</u></p> <ul style="list-style-type: none"> Using Accel TB wipes, clean the exterior surfaces of the cabinet, particularly the front and top of the cabinet, to remove any accumulated dust Disinfect and lift the work surface. Clean the lower plenum with Accel TB wipes Check the towel catch and remove any retained materials Record date and initials on LSM30210 Result as complete in TQC
4	<p><u>Annually:</u></p> <ul style="list-style-type: none"> BSCs are inspected, tested and certified annually by a qualified technician

Disclaimer Message: This is a **CONTROLLED** document for internal use only. Any documents appearing in paper form are not controlled and should be checked against the electronic file version prior to use.

Step	Action
Microscope Maintenance	
1	<p><u>Daily:</u></p> <ul style="list-style-type: none"> • Perform Kohler illumination. Refer to MIC10620-Kohler Illumination Job Aid • When you are finished viewing the slide, move the objective turret to bring the 10X objective into position over the viewing area. Then remove the slide from the stage. Do not go back to the 40X objective to prevent it from coming into contact with immersion oil. If this does occur, immediately remove any immersion oil as the 40x objective is not sealed against oil penetration, and any immersion oil left in contact with this objective will penetrate the lens and be deposited on the inside of the lower lens • Do not allow the 100X oil objective lens to sit above the condenser when changing slides as oil will drip off the objective • The microscope should be cleaned after each use when immersion oil is used. Wipe off the immersion oil with a gauze pad and then repeat with lens paper moistened with lens cleaner • To protect the microscope against dust, cover the microscope with the dust cover after each use
2	<p><u>As-needed:</u></p> <ul style="list-style-type: none"> • To change the fuse, refer to Leica DM 2000 operating manual for instructions • To change the bulb, refer to Leica DM 2000 operating manual for instructions
3	<p><u>Annually:</u></p> <ul style="list-style-type: none"> • BSCs are inspected, tested and certified annually by a qualified technician

NOTE: Notify the Technical Supervisor of any issues with equipment

CROSS-REFERENCES:

- MIC10610-FYRITE Gas Analysis Job Aid
- MIC10620-Kohler Illumination Job Aid

REFERENCES:

1. Forma Scientific Technical Manual. *Model 3932 Reach-In Incubator*, July 1987
2. Thermo Scientific Heratherm Microbiology Incubators. Model , 2010
3. LABCONCO. *Biological Safety Cabinet Manual*, 2018
4. Thermo Scientific Refrigerator Manual. *Model TSG5055A*, April 2018
5. Thermo Scientific Refrigerator Manual. *Model FRGL404*, 2010
6. Thermo Scientific Refrigerator Manual. *Model TSX 2305* , Sept 2016
7. Thermo Scientific Refrigerator Manual. *Model TSX 4505*, Sept 2016
8. Leica LED Operating Manual. *Model DM1000 Leica DM1000*, June 2010
9. BACHARACH Manual. *FYRITE Gas Analyzer CO2 Indicators*, October 2015

Disclaimer Message: This is a **CONTROLLED** document for internal use only. Any documents appearing in paper form are not controlled and should be checked against the electronic file version prior to use.

APPROVAL:

Date

REVISION HISTORY:

REVISION	DATE	Description of Change	REQUESTED BY
1.0	05 Sep 2017	Initial Release	L. Steven
2.0	30 Jan 2022	Procedure reviewed and added to NTHSSA policy template	L. Steven

DRAFT

Disclaimer Message: This is a **CONTROLLED** document for internal use only. Any documents appearing in paper form are not controlled and should be checked against the electronic file version prior to use.