

MOH-Laboratory Certification Checklist

Important Reminders

General:

- 1) The MOH Laboratory Certification Checklist shall be used as the minimum criteria for the certification. Additional checklist may be used to supplement, but not to replace this checklist.
- 2) MOH officer must be present during the independent measurements/tests and physical inspection phase of the certification/re-certification or verification/re-verification unless advised otherwise by MOH.
- 3) The facility being certified and the MOH-Approved Facility Certifier are both responsible in informing MOH of the certification/re-certification schedule at least 1 month before the scheduled inspection.
- 4) MOH may introduce new measures or requirements on the certification scheme or the MOH-AFC.
- 5) The list of MOH-AFC may be updated from time to time.
- 6) The final outcome of the certification of the facility will be based on MOH's decision and not solely on the MOH-AFC's certification report.

Laboratories:

- 1) The laboratory being certified should have the following in place:
 - a) Emergency response plan
 - i. The laboratory staff must be able to demonstrate competency in handling small laboratory accidents (e.g. minor spills, etc) upon MOH's request
 - ii. There should be a regular drill conducted together with the Singapore Civil Defense Force (SCDF). The presence of an MOH officer is required during the drill as the conduct of the drill will be audited by MOH.
 - b) Red teaming¹ program
 - i. An in-house two-sided red teaming exercise must be done.
 - ii. A report using the template provided during the RT training course, shall be submitted to MOH.
 - iii. The lab staff may be interviewed by MOH regarding the red teaming exercise.

¹Red teaming Exercise refers to a variety of exercise activities which aims to test and/or identify the probable security vulnerabilities in a facility.

MOH-Laboratory Certification Checklist

MOH-Approved Facility Certifier:

- 1) MOH-approved certifier is advised to read and understand the requirements of the Biological Agents and Toxins Act (BATA) before carrying out any certification process.
- 2) The lead certifier shall ensure that the certification team involved in the certification are composed of at least microbiologist and one engineer that are fully qualified and approved by MOH.
- 3) A certifier cannot be engaged to certify a facility that the company or a member of the MOH-AFC team has provided maintenance services.
- 4) A certifier is not allowed to certify a BSL3 facility if the company or a member of the certifying team has provided design, construction or commissioning services for the past 12 months from the date of rendering the said services.
- 5) A certifier can only certify a facility for 2 consecutive years, otherwise, consent or approval from MOH is required.
- 6) The certifiers must ascertain that the facility's engineering controls have sufficient redundancy² and/or a system in place to ensure the continuous and safe operation of the biocontainment laboratory. Documentation of such tests is required in the certification report. If the facility does not meet this criteria, the facility operator should have SOP's to manage the failure scenario and to ensure safety of the facility personnel is guarded at all times.
- 7) Any verification/re-verification process requires the presence of the AFC with the relevant expertise (biosafety and/or engineering) in relation to the issues being verified must be present.
- 8) The ventilation system of the facility being certified must be challenged with all probable scenarios including failure of the electrical system and Building Automations System (BAS). MOH is to approve the ventilation system test script.
- 9) The differential room pressure, during normal operation, during a challenge and upon resuming to normal operations shall be determined and measured in a quantitative manner with the use of an annually calibrated instrument that can provide reliable and real time quantitative data. Qualitative tests such as smoke test may be used only to supplement but not to replace the quantitative method of measurement.
- 10) The differential pressure (with reference to item 9 above) shall be taken for all rooms and not limited to only selected representative rooms and the findings shall be recorded and presented in the certification report.
- 11) Expert advice/resolutions to problems identified during the certification process shall be provided to the concerned facility.
- 12) The validity of an MOH-Approved Facility Certifier depends upon the discretion of the MOH.
- 13) The MOH-AFC is responsible for informing MOH of any change in the team members which is subject to MOH approval.
- 14) MOH has the right to revoke the MOH-AFC's registration at any time and the revocation decision will be final.

²Examples of redundancy include emergency power supply, uninterrupted power supply, additional air handling unit and/or exhaust fans

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Laboratory certification checklist.

Location: _____

Date: _____

Person in charge of laboratory: _____

| S/N | Checked item (Enter date checked) | Yes | No | N/A | Comments |
|-----|---|--|--|--|----------|
| | <i>ENGINEERING CONTROLS</i> <i>(1) General Engineering Controls</i> | | | | |
| 1 | (M) Curbs installed at: <ul style="list-style-type: none"> • emergency door • shower area | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> | <input type="checkbox"/> <input type="checkbox"/> | |
| 2 | Laboratory airflow is negative to general occupancy, corridor and office areas. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 3 | Cup sinks or drains acting as vents. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 4 | Sink available for hand-washing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 5 | Exposed machine parts (pulleys, gears). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 6 | Vacuum line has filters and traps on laboratory benches. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 7 | Backflow hazards to water supply. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 8 | Distilled water systems in good condition. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 9 | Active and effective arthropod and rodent control programme. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|-----|--|--------------------------|--------------------------|--------------------------|----------|
| | <i>ENGINEERING CONTROLS</i> <i>(2) Laboratory Design</i> | | | | |
| 10 | Proper hazard signage for ultraviolet light, laser, radioactive material, National Fire Protection Association (NFPA) 704 chemical, flammable liquid, flammable gas, toxic, et cetera. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 11 | Laboratory equipment properly labelled (biohazardous, radioactive, toxic, et cetera.). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 12 | Laboratory designed for easy cleaning. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 13 | Room ultraviolet lights on interlock switch. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 14 | All shelves secured. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 15 | Bench-tops waterproof and resistant to acids, alkali, organic solvents and heat. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 16 | Adequate illumination provided. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 17 | Adequate storage space available and appropriately used. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 18 | (M)Biohazard sign posted on laboratory door: <ul style="list-style-type: none"> • has the name and contact number of the responsible investigator as well as the person to contact during • has accurate and current information • is legible and not defaced. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 19 | All doors closed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|--|---|--------------------------|--------------------------|--------------------------|----------|
| 20 | Hand-washing sink available near laboratory exit. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 21 | Laboratory separated from unrestricted traffic flow in building. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 22 | Access to laboratory through an anteroom with self-closing doors. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 23 | All penetrations in laboratory sealed or sealable for decontamination. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 24 | Room exhaust air single-pass and exhausted away from occupied areas. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 25 | Controlled ventilation system to monitor directional airflow available. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 26 | (M) Exhaust air must be high-efficiency particulate air (HEPA) filtered before discharge out of the laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ENGINEERING CONTROLS</i> <i>(3) Biological Safety Cabinet (BSC)</i></p> | | | | | |
| 27 | Certification within one year. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 28 | BSC surface wiped down with appropriate disinfectant at beginning and end of each procedure. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 29 | Front grill and exhaust filter unobstructed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 30 | Open flames used inside cabinet. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|---|---|--------------------------|--------------------------|--------------------------|----------|
| 31 | Vacuum lines have in-line filters and disinfectant traps in use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 32 | BSC compromised by room air or location. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 33 | BSC used when there is potential for creating aerosols. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ENGINEERING CONTROLS</i> <i>(4) Gas cylinder</i></p> | | | | | |
| 34 | All cylinders secured. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 35 | Caps on reserve cylinders. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 36 | Asphyxiating and hazardous gases only in ventilated rooms. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 37 | Excess or empty cylinders present. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ENGINEERING CONTROLS</i> <i>(5) Refrigerators/freezers/cold rooms</i></p> | | | | | |
| 38 | Food and drinks for human consumption present. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 39 | Flammables in explosion-proof/-safe units. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 40 | Labelled externally if containing carcinogens, radioactivity and/or biohazards. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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| 41 | Cold-room has emergency release. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ENGINEERING CONTROLS</i> <i>(6) Electrical Equipment</i></p> | | | | | |
| 42 | Extension cords present. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 43 | Outlets earthed/grounded and with proper polarity. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 44 | Connections by sinks, under showers, et cetera. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 45 | Equipment with frayed or damaged wiring. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 46 | Overloaded outlets or electrical strips. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 47 | Power strips mounted off the floor. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 48 | Proper fuses in conduits. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 49 | Electrical outlets near water sources meet local codes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 50 | Earthing/grounding present on electrical cords. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 51 | Portable space heaters. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|-----|---|--------------------------|--------------------------|--------------------------|----------|
| | <i>ENGINEERING CONTROLS</i> <i>(7) General Laboratory Housekeeping</i> | | | | |
| 52 | Glass containers stored on the floor. | | | | |
| 53 | Trip hazards evident. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 54 | Clean absorbent pads on work surfaces. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 55 | Broken glassware handled by mechanical means (brush and dustpan, tongs, et cetera.). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | <i>ENGINEERING CONTROLS</i> <i>(8) Fire Protection</i> | | | | |
| 56 | Sprinkler heads free and unobstructed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 57 | Open penetrations in walls, ceiling, floor, et cetera. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 58 | Wiring or tubing through door openings. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 59 | Minimum passage width of 1 m in laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 60 | Storage observed on ductwork or light fixtures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 61 | Excess combustibles stored in laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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| | <i>ENGINEERING CONTROLS</i> <i>(9) Heated Constant Temperature Baths</i> | | | | |
| 62 | Equipped with low water level and overheat shutoff. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 63 | Constructed of non-combustible materials. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | <i>ADMINISTRATIVE CONTROLS</i> <i>(1) Management's responsibilities</i> | | | | |
| 64 | Appropriate biosafety guidelines available and followed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 65 | (M) Appointment of Biosafety Committee. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 66 | (M) Appointment of Biosafety Coordinator. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 67 | (M) Proper inventory control system of all scheduled organisms in facility including records of: <ul style="list-style-type: none"> • quantities received • quantities transferred out • quantities destroyed or disposed of. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 68 | (M) Proper maintenance of records: <ul style="list-style-type: none"> • records of laboratory accidents • records of infections acquired by staff in the course of performing their duties. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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| 69 | (M) Health surveillance and disease monitoring of staff. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 70 | (M) Ensure that trainer(s) who provide training to staff have the competency and qualifications as follows: <ul style="list-style-type: none"> • tertiary academic qualifications in Biomedical Sciences or equivalent field. • significant working experience (3 years or more) in a BSL-3 or higher containment laboratory • significant experience (3 years or more) in direct laboratory safety management • significant experience (3 years or more) in developing and providing safety training courses. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 71 | (M) Maintenance of training records: <ul style="list-style-type: none"> • ensure that staff has received adequate training • training received by biosafety coordinators are from MOH approved training providers (ATP). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 72 | (M) For inactivation of organisms, the method of inactivation should be approved by the Biosafety Committee, and the method validated to be effective, before inactivated materials can be transferred to another laboratory/lower containment level for manipulation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 73 | (M) Report on risk assessment conducted as specified in the WHO laboratory biosafety manual, 3 rd edition (WHO guidelines). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 74 | (M) Appropriate contingency plans and SOPs developed and verified by Singapore Civil Defense Force. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|-----|--|--------------------------|--------------------------|--------------------------|----------|
| | <i>ADMINISTRATIVE CONTROL</i> <i>(2) Laboratory Access</i> | | | | |
| 75 | Access limited and restricted to authorized personnel. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 76 | Entry limited to personnel advised of all potential hazards . | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | <i>ADMINISTRATIVE CONTROL</i> <i>(3) Chemicals</i> | | | | |
| 77 | Flammables stored in flammable storage cabinet. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 78 | Peroxide formers double-dated (received and opened). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 79 | Chemicals properly segregated. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 80 | Hazardous chemicals stored above eye level. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 81 | Chemicals stored on the floor. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 82 | Chemical containers left open. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 83 | All solutions properly labelled. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 84 | Mercury thermometers in use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|-----|--|--------------------------|--------------------------|--------------------------|----------|
| | <i>ADMINISTRATIVE CONTROL</i> <i>(4) Decontamination</i> | | | | |
| 85 | Decontaminant specific to the organism(s) in use. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 86 | All spills and accidents involving infectious materials reported to the laboratory supervisor and in a timely manner to MOH. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 87 | Appropriate decontaminant used during spill clean-ups. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 88 | Work surfaces decontaminated before and after each procedure, daily and after spills. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 89 | (M) All contaminated waste materials must be autoclaved or decontaminated chemically before removal from the certified facility. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | <i>ADMINISTRATIVE CONTROL</i> <i>(5) Waste Management</i> | | | | |
| 90 | Evidence of improper waste disposal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 91 | Wastes segregated in proper containers. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 92 | Chemical waste containers tagged, labelled, dated and kept closed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|--|--|--------------------------|--------------------------|--------------------------|----------|
| 93 | Chemical waste containers appropriately handled and stored. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 94 | Sharps containers used and disposed of properly. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 95 | No trash on floor. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 96 | Waste disposal procedures posted in laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 97 | Infectious waste containers properly used. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 98 | Containers not overfilled. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 99 | Containers properly labelled and closed. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 100 | Culture stocks and other regulated waste properly decontaminated before disposal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 101 | Materials decontaminated outside the laboratory transported in closed, durable, leakproof containers according to local rules and regulations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 102 | Mixed waste biologically decontaminated prior to disposal as chemical or radiological waste. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ADMINISTRATIVE CONTROL</i> <i>(6) Occupational Health and Safety Programmes available</i></p> | | | | | |
| 103 | Hazard communication. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 104 | Respiratory protection. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|--|---|--------------------------|--------------------------|--------------------------|----------|
| 105 | Hearing conservation. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 106 | Formaldehyde monitoring. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 107 | Ethylene oxide monitoring. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 108 | Anaesthetic gas monitoring. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <p><i>ADMINISTRATIVE CONTROL</i> <i>(7) Practices and procedures</i></p> | | | | | |
| 109 | Food for human consumption stored outside the laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 110 | Microwave oven(s) clearly labelled "No Food Preparation, Laboratory Use Only". | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 111 | Eating, drinking, smoking and/or applying of cosmetics occurring in the laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 112 | Pressurized glass containers taped or shielded (i.e. vacuum traps). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 113 | Mouth pipetting prohibited. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 114 | Mechanical pipetting devices available and used. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 115 | Protective laboratory clothing stored separately from street clothing. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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| 116 | BSC used when potential for creating infectious aerosols/splashes exists. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 117 | Biosafety manual prepared and adopted. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 118 | Personnel read, review and follow the instructions on practices and procedures, including safety or operations manual (required for all personnel annually). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 119 | Procedures performed so as to minimize aerosols/splashes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 120 | Needle-locking syringes/single-use needle-syringe units used with infectious agents. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 121 | Centrifuge cups and rotors opened only in a BSC. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 122 | Infectious specimens transported outside a BSC in approved containers following approved transport regulations. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 123 | Mucous membrane protection provided when working with infectious material outside a BSC. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 124 | Personnel advised of special hazards associated with the agent(s). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 125 | Personnel required to read and follow all instructions on practices and procedures, including safety or operations manual. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 126 | Personnel receive annual updates/additional training for procedural changes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 127 | All contaminated waste autoclaved prior to disposal. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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|-----|---|--------------------------|--------------------------|--------------------------|----------|
| | <i>PROTECTION OF STAFF</i> <i>(1) Personal Protection</i> | | | | |
| 128 | Eyewash available in laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 129 | Safety shower available. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 130 | Personal protective equipment available (gloves, gowns, goggles, et cetera). | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 131 | Occupants properly attired. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 132 | Laboratory coats, gowns, smocks, gloves and other personal protective clothing not worn outside the laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 133 | Personal protective equipment available for cryogenic storage. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 134 | Laboratory personnel reminded of appropriate immunizations/tests for agents handled. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 135 | Appropriate medical services contacted for medical evaluations, surveillance and treatment of occupational exposures. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 136 | Gloves worn when handling infectious material or contaminated equipment. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 137 | Face protection provided when working outside the BSC with infectious material. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

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| S/N | Checked item (Enter date checked) | Yes | No | N/A | Comments |
|---|---|--------------------------|--------------------------|--------------------------|----------|
| 138 | Hands washed after removing gloves, after working with infectious agents, before leaving the laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 139 | Antimicrobial agent available for immediate first aid. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 140 | Closed-front gowns worn in laboratory. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 141 | Protective laboratory clothing worn only in laboratory areas. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| 142 | Hand-washing sink foot, elbow or automatically controlled. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <i>PROTECTION OF STAFF</i> <i>(2) Hand Protection</i> | | | | | |
| 143 | Double gloves worn when handling infectious material, potentially contaminated equipment and work surfaces. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| <i>PROTECTION OF STAFF</i> <i>(3) Respiratory Protection</i> | | | | | |
| 144 | Respiratory protection worn by all personnel in the laboratory when aerosols are not safely contained in a BSC. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

MOH-Laboratory Certification Checklist

| S/N | Checked item (Enter date checked) | Yes | No | N/A | Comments |
|-----|--|--------------------------|--------------------------|--------------------------|----------|
| | <i>EMERGENCY RESPONSE</i> | | | | |
| 145 | Laboratory personnel has demonstrated competency in performing emergency response procedures/spill Specify the type of ERP demonstrated: _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |

Name of certifier: _____

Company's stamp: _____

Certifier's signature: _____

Date certification completed: _____