**Instructions:**

1. Using the checklist below, please inspect your lab and note any deficiencies that need to be addressed. The Principal Investigator (PI) may assign a senior lab member or laboratory supervisor to complete the checklist but the PI must review, date and sign the checklist.
2. Please sign and date the completed checklist.
3. If you have any questions, please contact the IBBC secretariat via email: [**ibbc@upm.edu.my**](mailto:ibbc@upm.edu.my)

|  |  |
| --- | --- |
| **Date :** |  |
| **Conducted by :** |  |
| **Principal Investigator (PI) :** |  |
| **Faculty / Institute / Centre :** |  |
| **Department :** |  |

**BASIC LABORATORY – BIOSAFETY LABORATORY LEVEL 2 (BSL 2)**This checklist is used in addition to the Biosafety Level 1 laboratory safety checklist

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| **1.** | **BIOLOGICAL SAFETY CABINET (BSC)** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Annually certified by qualified person |  |  |  |  |
| B. | BSC surface wiped down with appropriate disinfectant at beginning and end of each procedure |  |  |  |  |
| C. | Front grill and exhaust filter unobstructed |  |  |  |  |
| D. | No open flames used inside cabinet |  |  |  |  |
| E. | Vacuum lines have in-line filters and disinfectant traps in use |  |  |  |  |
| F. | Location of BSC not directly opposite entrance and below in-flow air vent |  |  |  |  |
| G | BSC used when there is potential for creating infectious aerosols |  |  |  |  |

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| **2.** | **ADMINISTRATIVE CONTROL** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Access limited and restricted to authorized personnel |  |  |  |  |
| B. | Appointment of Biosafety Officer |  |  |  |  |
| C. | Laboratory biosafety training program implemented |  |  |  |  |
| D. | Proper documentation and records (material inventory, incident reporting and etc.) |  |  |  |  |
| E. | Immunization plan available |  |  |  |  |
| F. | Appropriate medical surveillance available |  |  |  |  |
| G. | Biosafety manual prepared and adopted |  |  |  |  |
| H. | Staff competency evaluated |  |  |  |  |

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| **3.** | **LABORATORY** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Biohazard sign posted on laboratory door as appropriate |  |  |  |  |
| B. | Information on signage accurate, current and indicate emergency contact numbers |  |  |  |  |
| C. | Sign legible and not defaced |  |  |  |  |
| D. | All doors closed |  |  |  |  |
| E. | All windows sealed or closed permanently |  |  |  |  |
| F. | Hand-washing sink available near laboratory exit |  |  |  |  |

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| **4.** | **DECONTAMINATION** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Decontaminant appropriate to the organism(s) in use |  |  |  |  |
| B. | All spills and accidents involving infectious materials reported to the laboratory supervisor |  |  |  |  |
| C. | Appropriate disinfectant used during spill clean-ups |  |  |  |  |
| D. | Work surfaces decontaminated before and after each procedure, daily and after spills |  |  |  |  |
| E. | Biological spill kit available (content e.g. disinfectant should be periodically checked for expiry) |  |  |  |  |

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| **5.** | **HANDLING OF CONTAMINATED WASTE** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Infectious waste should be segregated and placed in autoclavable bags |  |  |  |  |
| B. | Waste containers or bags properly labelled and closed securely |  |  |  |  |
| C. | Culture stocks and other infectious waste properly decontaminated by autoclaving or chemical disinfectant before disposal |  |  |  |  |
| D. | Infectious waste containers not overfilled |  |  |  |  |
| E. | Materials decontaminated outside the laboratory transported in closed, durable, leak proof containers |  |  |  |  |
| F. | Co-mingled waste (biological waste mixed with chemical or radiological waste)/decontaminated prior to disposal according to local regulations |  |  |  |  |

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| **6.** | **PERSONAL PROTECTION** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Gloves worn when handling infectious material or contaminated equipment |  |  |  |  |
| B. | Face protection provided when working outside the BSC with infectious material |  |  |  |  |
| C. | Proper personal protective equipment available (gloves, gowns, goggles, etc.) and worn |  |  |  |  |

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| **7.** | **PRACTICES** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | BSC used when potential for creating infectious aerosols/splashes exists |  |  |  |  |
| B. | Personnel read, review and follow the instructions on practices and procedures, including safety or operations manual |  |  |  |  |
| C. | Procedure performed so as to minimize aerosols/splashes |  |  |  |  |
| D. | Needle-locking syringes/single-use needle- syringe units used with infectious agents |  |  |  |  |
| E. | Appropriate handling of centrifuge cups and rotors |  |  |  |  |
| F. | Infectious specimens transported outside a BSC in suitable containers |  |  |  |  |
| G. | Hands washed after removing gloves, after working with infectious agents, before leaving the laboratory |  |  |  |  |
| H. | Packaging and transportation of infectious materials within facility and between institution should follow local guideline and international regulations |  |  |  |  |

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| **8.** | **ENGINEERING CONTROL** | **YES** | **NO** | **N/A** | **COMMENTS** |
| A. | Autoclave is available and certified annually |  |  |  |  |
| B. | Preventive maintenance performed for equipment |  |  |  |  |

Note: N/A – Not Applicable; BSC – Biosafety Cabinet

**Other comments:**

Signature and stamp of PI: Date:

*Adapted from: Malaysia Laboratory Biosafety and Biosecurity Policy and Guideline, Ministry of Health Malaysia, 2015, 1st Edition (section 3.0 Laboratory Biosafety Checklist)*