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| **Principal Investigator Biosafety Laboratory Competency Checklist** | | | | |
| **Employee Name:** | **Date:** | | | |
| **Employee Title:** | **Supervisor:** | | | |
| **SECTION I. POTENTIAL HAZARDS** | | | | |
| **Biological Materials** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure personnel's knowledge of biohazardous materials | |  |  |  |
| 1. Manage biohazardous materials | |  |  |  |
| 1. Establish hazard controls for biologic materials used in laboratory procedures | |  |  |  |
| 1. Assess procedures for hazardous components | |  |  |  |
| Comments: | | | | |
| **Research Animals** | | | | |
|  | | Yes | No | N/A |
| 1. Assess the inherent hazards associated with research animals | |  |  |  |
| 1. Assess possible route of exposures to personnel in relation to the animal procedures used | |  |  |  |
| 1. Develop control measures and work practices to mitigate risks associated with research animals | |  |  |  |
| Comments: | | | | |
| **Chemical Materials** | | | | |
|  | | Yes | No | N/A |
| 1. Establish chemical inventory | |  |  |  |
| 1. Assess personnel's knowledge of hazards associated with chemicals used in laboratory procedures | |  |  |  |
| 1. Establish control measures and work practices to be used when working with chemicals | |  |  |  |
| Comments: | | | | |
| **Radiologic Materials** | | | | |
|  | | Yes | No | N/A |
| 1. Establish inventory of radiologic materials used in the laboratory | |  |  |  |
| 1. Assess hazards associated with use of radiologic materials (collaborate with radiation safety personnel, as needed) | |  |  |  |
| 1. Establish control measure and work practices to be used when working with radiologic materials (collaborate with radiation safety personnel, as needed) | |  |  |  |
| 1. Evaluate monitoring devices for suitability in detecting radioisotopes to be used (collaborate with radiation safety personnel, as needed) | |  |  |  |
| Comments: | | | | |
| **Physical Environment** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure identification of physical hazards present in the laboratory | |  |  |  |
| 1. Establish control measures and work practices to be used when working with physically hazardous materials (collaborate with safety professionals, as needed) | |  |  |  |
| Comments: | | | | |
| **SECTION II. HAZARD CONTROLS** | | | | |
| **Personal Protective Equipment (PPE) (Primary Barriers)** | | | | |
|  | | Yes | No | N/A |
| 1. Determine PPE required for general laboratory entry | |  |  |  |
| 1. Determine procedures (with institutional professionals) for use of specific PPE | |  |  |  |
| 1. Develop a respiratory protection program to include fit testing for all staff using respiratory protection devices | |  |  |  |
| 1. Ensure personnel's compliance with correct use of PPE | |  |  |  |
| 1. Establish assessment procedures to maintain integrity and functionality of all PPE in use | |  |  |  |
| 1. Develop procedures for appropriate reporting and response to compromised PPE | |  |  |  |
| Comments: | | | | |
| **Engineering Controls --- Equipment (Primary Barriers)** | | | | |
|  | | Yes | No | N/A |
| 1. Determine correct equipment to use with engineering controls in order to contain hazardous materials worked with in the laboratory | |  |  |  |
| 1. Ensure proper functioning of laboratory equipment with engineering controls | |  |  |  |
| 1. Ensure timely remediation of improperly functioning engineering controls on laboratory equipment | |  |  |  |
| 1. Establish appropriate work practices for all staff working with laboratory equipment with engineering controls for safety | |  |  |  |
| 1. Collaborate with institutional safety professionals to establish procedures to ensure hazard awareness notification, training, and lock-out procedures for primary engineering control maintenance staff or contractors | |  |  |  |
| Comments: | | | | |
| **Engineering Controls --- Facility (Secondary Barriers) BSL-2 & BSL-3** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure that laboratory personnel have appropriate knowledge about facility engineering controls designed to prevent exposure or release of hazardous materials from the laboratory | |  |  |  |
| 1. Develop response procedures to address any compromise in facility engineering controls | |  |  |  |
| 1. Ensure correct reporting procedures are followed by all laboratory personnel when facility engineering controls are compromised | |  |  |  |
| 1. Ensure continuous maintenance and required recertification of facility and facility engineering control systems | |  |  |  |
| 1. Collaborate with institutional safety and facility professionals to develop the laboratory's controlled access system | |  |  |  |
| 1. Ensure adherence to facility security rules | |  |  |  |
| 1. Advise personnel on facility design differences between BSL-2 and BSL-3 laboratories | |  |  |  |
| 1. Collaborate with institutional safety and maintenance professionals to determine appropriate procedures for cleaning of laboratory containment areas | |  |  |  |
| Comments: | | | | |
| **Decontamination and Laboratory Waste Management** | | | | |
|  | | Yes | No | N/A |
| 1. Establish facility waste segregation procedures for biologic, chemical, and radiologic materials in compliance with all required regulations and policies | |  |  |  |
| 1. Establish facility waste management procedures for biologic materials | |  |  |  |
| 1. Establish methods of disinfection, decontamination, and sterilization | |  |  |  |
| 1. Establish regulatory compliant procedures for hazardous chemical waste collection and disposal | |  |  |  |
| 1. Collaborate with radiation safety professionals to acquire required licensing and establish procedures for radioactive waste collection and disposal | |  |  |  |
| 1. Establish procedures for safely removing equipment and instruments from the laboratory | |  |  |  |
| Comments: | | | | |
| **SECTION III. ADMINISTRATIVE CONTROLS** | | | | |
| **Hazard Communication and Signage** | | | | |
|  | | Yes | No | N/A |
| 1. Determine required safety signs, labels, and posted information | |  |  |  |
| 1. Ensure the implementation of labeling of samples, containers, and cultures is compliant with appropriate regulatory requirements | |  |  |  |
| 1. Develop procedures to communicate sample-specific hazard information according to SOPs | |  |  |  |
| 1. Ensure personnel's knowledge of communication processes for applicable regulatory requirements | |  |  |  |
| 1. Ensure personnel's knowledge of signals and alarms | |  |  |  |
| Comments: | | | | |
| **Guideline and Regulation Compliance** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure personnel have knowledge of current regulatory requirements and applicable guidelines | |  |  |  |
| 1. Develop and maintain laboratory manuals and plans to comply with current regulatory requirements and applicable guidelines | |  |  |  |
| 1. Ensure compliance with applicable institutional committee requirements | |  |  |  |
| 1. Advise regarding regulatory communications requirements | |  |  |  |
| Comments: | | | | |
| **Safety Program Management** | | | | |
|  | | Yes | No | N/A |
| 1. Collaborate in the development of the institution's safety and occupational health programs | |  |  |  |
| 1. Develop site-specific safety training program | |  |  |  |
| 1. Develop procedures for routine monitoring of equipment and facilities | |  |  |  |
| 1. Resolve investigation of deviations from normal operations and procedures | |  |  |  |
| 1. Develop quality assurance program | |  |  |  |
| 1. Develop records management system | |  |  |  |
| Comments: | | | | |
| **Occupational Health --- Medical Surveillance** | | | | |
|  | | Yes | No | N/A |
| 1. Collaborate in the development of the medical surveillance plan | |  |  |  |
| 1. Ensure personnel's knowledge of the benefits for monitoring personal health status changes | |  |  |  |
| 1. Collaborate in the development of incident exposure reporting procedures | |  |  |  |
| 1. Ensure personnel's knowledge of signs and symptoms after exposure to hazardous materials | |  |  |  |
| Comments: | | | | |
| **Risk Management** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure personnel have knowledge of the differences in work practices between biosafety levels | |  |  |  |
| 1. Ensure that potential hazards associated with laboratory materials and procedures are identified | |  |  |  |
| 1. Ensure risk assessment is performed in accordance with institutional policy | |  |  |  |
| 1. Ensure that control measures identified in the risk assessment are implemented, including communication | |  |  |  |
| 1. Determine if controls have reduced the risk to an acceptable level | |  |  |  |
| Comments: | | | | |
| **SECTION IV. EMERGENCY PREPAREDNESS AND RESPONSE** | | | | |
| **Emergencies and Incident Response** | | | | |
|  | | Yes | No | N/A |
| 1. Ensure personnel's ability to recognize emergencies and other incidents that should be reported | |  |  |  |
| 1. Collaborate with appropriate persons and agencies to develop plans and policies for reporting emergencies and other incidents | |  |  |  |
| 1. Develop procedures to respond to emergencies and other incidents according to institutional plans and policies | |  |  |  |
| Comments: | | | | |
| **Exposure Prevention and Hazard Mitigation** | | | | |
|  | | Yes | No | N/A |
| 1. Develop laboratory's incident follow-up process to include the following: review of incident report, initiation of investigation process, conducting of root-cause analysis, development of an action plan to mitigate root causes, and reporting after taking action | |  |  |  |
| 1. Assess effectiveness of response to incident | |  |  |  |
| Comments: | | | | |
| **Emergency Response Exercises and Drills** | | | | |
|  | | Yes | No | N/A |
| 1. Develop required emergency response training | |  |  |  |
| 1. Collaborate in the development of drills and exercises for laboratory personnel | |  |  |  |
| Comments: | | | | |