Example Laboratory Biosafety and Biosecurity Questionnaire[1]

Note: Completed questionnaires are not appropriate for public dissemination and should be considered For Official Use Only.

Background Questions About the Facility

1. Does your institution or laboratory work with or handle pathogens or toxins?
   - □ Yes
   - □ No (thank you; no need to continue questionnaire)

2. Which BEST describes your organization? (choose only one)
   - □ Academic
   - □ Commercial testing lab
   - □ Contract research
   - □ Government
   - □ Group/private practice
   - □ Healthcare network/facility
   - □ Hospital or university medical center
   - □ Managed care
   - □ Medical device/diagnostics
   - □ Pharmaceutical/biotechnology
   - □ Private research
   - □ Other (please specify) _____

3. Please estimate how many total laboratory workers (including graduate students/postdocs/technicians) are in your ORGANIZATION. (choose only one)

Permanent staff	Students, postdoctoral appointees, trainees
□ 1 to 100	□ 1 to 100
□ 101 to 500	□ 101 to 500
□ 501 to 1,000	□ 501 to 1,000
□ More than 1,000	□ More than 1,000

[1] Sandia National Laboratories International Biological Threat Reduction Program, 2007, SAND 2007-3853P

Sandia is a multiprogram laboratory operated by Sandia Corporation, a Lockheed Martin Company, for the United States Department of Energy's National Nuclear Security Administration under Contract DE-AC04-94AL85000.

4. Which of the following BEST characterizes the stage of your laboratory's work with these infectious agents and/or toxins?
   - □ Basic
   - □ Clinical
   - □ Disease surveillance
   - □ Drug discovery and/or development
   - □ Translational
   - □ Other (please specify) _____

5. From where does your facility receive funding to conduct your bioscience work? (check all that apply)
   - □ Local government
   - □ My department
   - □ My institution
   - □ National government
   - □ Non-medical corporation
   - □ Pharmaceutical, biotechnological or diagnostic company
   - □ Private foundation or charity
   - □ Royalties
   - □ State government
   - □ Other (please specify) _____

6. Which biosafety levels (as described in the WHO Laboratory Biosafety Manual) best categorize the laboratories at your institution? (check all that apply)
   - □ Biosafety Level 1 (BSL1 or P1)
   - □ Biosafety Level 2 (BSL2 or P2)
   - □ Biosafety Level 3 (BSL3 or P3)
   - □ Biosafety Level 4 (BSL4 or P4)
   - □ Don't know

<u>Pathogens and toxins used or stored at the institution</u>

7. Bacteria and Rickettsia:
   - □ *Bacillus anthracis*
   - □ *Bordetella pertussis*
   - □ *Brucella abortus, melitensis or suis*
   - □ *Burkholderia mallei*
   - □ *Burkholderia pseudomallei*
   - □ *Campylobacter jejuni*
   - □ *Chlamydia psittaci*
   - □ *Clostridium botulinum*
   - □ *Clostridium tetani*
   - □ *Corynebacterium diphtheriae*
   - □ *Coxiella burnetii*
   - □ *Escherichia coli O157:H7*
   - □ *Francisella tularensis*

□ *Helicobacter pylori*
□ *Leptospira interrogans* (all serovars)
□*Listeria monocytogenes*
□*Legionella pneumophila*
□ methicillin-resistant *Staphylococcus aureus* (MRSA)
□ *Mycobacterium tuberculosis*
    □ drug-resistant strains
    □ multi-drug resistant (MDR) strains
□ *Neisseria meningitidis*
□ drug-resistant *Pseudomonas aeruginosa*
□ *Rickettsia prowazeki*
□ *Rickettsia rickettsii*
□ *Salmonella spp.*
    □ *Salmonella typhi*
    □ *Salmonella typhimurium*
    □ drug-resistant strains
    □ other serotypes
□ *Shigella dysenteriae*
□ *Vibrio cholerae*
□ *Yersinia pestis*
□ Other (please specify) _____

8. Viruses:
□ Akabane virus
□ B virus (Cercopithecine herpesvirus, Herpesvirus simiae)
□ Bluetongue virus
□ Chikungunya virus
□ Classical swine fever virus
□ Eastern Equine Encephalitis virus
□ Foot and mouth disease virus
□ Hemorrhagic Fever viruses
    □ Crimean-Congo hemorrhagic fever virus
    □ LCM, Junin virus, Machupo virus, or Guanarito virus
    □ Lassa Fever virus
    □ Hantaan virus (hemorrhagic fever with renal syndrome)
    □ Sin Nombre
    □ Rift Valley Fever virus
    □ Dengue virus
    □ Ebola virus
    □ Marburg virus
    □ Other (please specify) _____
□ Hendra and Hendra-like viruses

- □ Hepatitis viruses
  - □ A
  - □ B
  - □ C
  - □ D
  - □ E
- □ Human immunodeficiency virus (HIV)
- □ Influenza viruses
  - □ H5N1
  - □ H2N2
  - □ contemporary human influenza virus strains
  - □ Other (please specify) _____
- □ Newcastle Disease virus (VVND)
- □ Nipah viruses
- □ Norovirus
- □ Polio virus
- □ Pox viruses
  - □ Monkeypox virus
  - □ Vaccinia virus
  - □ Other (please specify) _____
- □ Rabies virus
- □ Rift Valley fever virus
- □ Rinderpest virus
- □ Severe Acute Respiratory Syndrome (SARS)
- □ Viral encephalitides
  - □ Eastern Equine Encephalitis virus
  - □ Japanese Encephalitis virus
  - □ Kyasanur Forest virus
  - □ Venezuelan Equine Encephalitis virus
  - □ Western Equine Encephalitis virus
  - □ West Nile Virus
  - □ Other (please specify) _____
- □ Vesicular Stomatitis virus
- □ West Nile virus
- □ Yellow fever virus
- □ Other (please specify) _____

9. Toxins:
   - □ Abrin
   - □ Aflatoxin
   - □ Botulinum toxins
   - □ Clostridium perfringens toxins
   - □ Conotoxin
   - □ Diacetoxyscirpenol
   - □ Microcystins

□ Ricin
□ Saxitoxin
□ Snake venom toxins
□ Shiga toxin and shiga-like ribosome inactivating proteins
□ Staphylococcus aureus toxins
□ Tetrodotoxin
□ T-2 toxin
□ Other (please specify) _____

10. Other:

□ *Coccidioides immitis*
□ *Cryptosporidium parvum*
□ *Giardia lamblia*
□ *Histoplasma capsulatum*
□ Malaria
□ Prions
    □ BSE
    □ CJD
    □ kuru
    □ Other (please specify) _____
□ Toxoplasma
□ Other (please specify) _____

Biosafety and Biosecurity Program Management

Laboratory Biosafety[2]: Describes the containment principles, technologies, and practices that are implemented to prevent the unintentional exposure to pathogens and toxins, or their accidental release.

Laboratory Biosecurity[3]: Describes the institutional and personal security measures designed to prevent the loss, theft, misuse, diversion, or intentional release of pathogens and toxins.

11. From where does your laboratory obtain policies or regulations for ensuring laboratory biosafety and biosecurity? (check all that apply)

□ World Health Organization (WHO), Laboratory Biosafety Manual
□ World Health Organization (WHO), Laboratory Biosecurity Guidance
□ Asia BioNet
□ U.S. Biosafety in Microbiological and Biomedical Laboratories (BMBL)
□ Food and Agriculture Organization of the United Nations (FAO)
□ International Biosafety Working Group (IBWG)

[2] World Health Organization, Laboratory Biosafety Manual, 3rd edition, 2004.
[3] Ibid.

□ Canada, Laboratory Biosafety Guidelines
□ Australian/New Zealand Standard 2243.3 *Safety in laboratories – Microbiological aspects and containment facilities*
□ Laboratory director(s)
□ My country's government
□ Office International des Epizooties (OIE)
□ Other (please specify) _____
□ Our lab does not employ any specific laboratory policies or regulations.

12. How does your organization manage its biosafety and biosecurity programs? (check all that apply)
    □ Biosafety manual or plan
    □ Biosecurity manual or plan
    □ Biosafety training
        □ Please specify what kind and how often: _____
    □ Biosecurity training
        □ Please specify what kind and how often: _____
    □ Health and medical surveillance
    □ Immunizations when needed
    □ Personnel screening
    □ Standard Operating Procedures (SOPs)
    □ Incident response plans
    □ Institutional biosafety committee
    □ Biosafety officer or other person with responsibility for biosafety
    □ Biosecurity officer or other person with responsibility for biosecurity
    □ Laboratory management plan
    □ Protection of susceptible (e.g., pregnant, immunocompromised) employees
    □ Other (please specify) _____
    □ None of the above

<u>Laboratory Biosafety</u>

13. Which of the following aspects of biosafety does your institution use to manage the risks? (check all that apply)
    □ Practices & procedures (e.g. good microbiological techniques, Personal Protective Equipment (PPE))
    □ Primary barriers (e.g. biosafety cabinets)
    □ Secondary barriers (e.g. room construction, directional airflow)
    □ Please specify which of the above three is most important at your institution: _____

14. Please indicate which types of biosafety features that your facility has.

	No	Yes
Physical isolation of laboratory		
Double-door entry		
Adequate lighting		
Fire protection system		
Hand washing sink near lab exit		
Anteroom		
Anteroom with shower		
Ability to monitor people		
Window(s)		
Closed-circuit television		
Two-way communication		
Type of ventilation		
Standard building ventilation		
Inward airflow		
Room exhaust is single pass		
HEPA-filtered air exhaust		
Sealable room for decontamination		

15. Please indicate what proportion of the time your lab uses or performs the following biosafety measures.

	All of the time	Most of the time	Some of the time	Little of the time	None of the time
Decontaminating waste before disposal	☐	☐	☐	☐	☐
Segregating waste	☐	☐	☐	☐	☐
Minimize use of sharps	☐	☐	☐	☐	☐
Dedicated sharps containers for disposal of sharps	☐	☐	☐	☐	☐
Use of Class I Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Use of Class II, Type A1 Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Use of Class II, Type A2 Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Use of Class II, Type B1 Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Use of Class II, Type B2 Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Use of Class III Biological Safety Cabinet for work with infectious materials	☐	☐	☐	☐	☐
Gloves	☐	☐	☐	☐	☐
Double gloves when handling infectious material	☐	☐	☐	☐	☐
Closed toes shoes	☐	☐	☐	☐	☐
Lab coats, lab gowns	☐	☐	☐	☐	☐

N95 or N100 respirators	☐	☐	☐	☐	☐
Powered air purifying respirators	☐	☐	☐	☐	☐
Mechanical pipetting aids	☐	☐	☐	☐	☐

Laboratory Biosecurity

15. Please indicate what proportion of the time your lab uses or performs the following physical security measures.

	All of the time	Most of the time	Some of the time	Little of the time	None of the time
Electronic access control devices	☐	☐	☐	☐	☐
Guard at building entrance(s)	☐	☐	☐	☐	☐
Intrusion sensors and alarms	☐	☐	☐	☐	☐
Lighted building at night	☐	☐	☐	☐	☐
Locked cabinets	☐	☐	☐	☐	☐
Locked doors to building	☐	☐	☐	☐	☐
Locked doors to laboratory room(s)	☐	☐	☐	☐	☐
Locked refrigerators	☐	☐	☐	☐	☐
Security patrols	☐	☐	☐	☐	☐
Self-closing doors	☐	☐	☐	☐	☐
Unobstructed views of entrance(s)	☐	☐	☐	☐	☐
Video monitors	☐	☐	☐	☐	☐

16. Please indicate what proportion of the time your lab uses or performs the following personnel security measures.

	All of the time	Most of the time	Some of the time	Little of the time	None of the time
Background screening for potential employees	☐	☐	☐	☐	☐
Biosecurity training for new employees	☐	☐	☐	☐	☐
Building escorts for non-employees	☐	☐	☐	☐	☐
List of employees who have access to restricted areas	☐	☐	☐	☐	☐
Identification badges	☐	☐	☐	☐	☐
Records of keycard/key assignments	☐	☐	☐	☐	☐
Restricted access to laboratory areas	☐	☐	☐	☐	☐

17. Please indicate what proportion of the time your lab uses or performs the following information security measures.

	All of the time	Most of the time	Some of the time	Little of the time	None of the time
Computer/network security maintained	☐	☐	☐	☐	☐
Computers and/or computer files are password protected	☐	☐	☐	☐	☐
Off-site storage of data and/or information is secure	☐	☐	☐	☐	☐
Sensitive documentation is destroyed before putting in trash	☐	☐	☐	☐	☐
Secure storage of sensitve documents	☐	☐	☐	☐	☐

18. Please indicate what proportion of the time your lab uses or performs the following material control & accountability measures.

	All of the time	Most of the time	Some of the time	Little of the time	None of the time
Appropriate permission(s) obtained to share infectious agents and/or toxins with other investigators/labs	☐	☐	☐	☐	☐
Current inventory of infectious agents and/or toxins	☐	☐	☐	☐	☐
Inventory records are checked against actual infectious agents in storage	☐	☐	☐	☐	☐
Direct supervisor is aware of all infectious agents and/or toxins studied in lab	☐	☐	☐	☐	☐
Infectious agents and/or toxins not in use are destroyed	☐	☐	☐	☐	☐
Laboratory head is aware of all infectious agents and/or toxins studied in lab	☐	☐	☐	☐	☐
Shipment of infectious agents and/or toxins using International Air Transport Association IATA Dangerous Goods Regulations	☐	☐	☐	☐	☐