Biosafety Level III
Suitable for work with infectious agents which *may cause serious or potentially lethal disease* as a result of exposure by the inhalation route.
Biosafety Level 3

Introduction

- Exposure potential to pathogens spread by aerosol
- Infection serious, possibly lethal
- Examples:
  - *M. tuberculosis*
  - *St. Louis encephalitis virus*
  - *Coxiella burnetii*
Biosafety Level 3
Laboratory Facilities (Secondary Barriers)
Biosafety Level 3
Laboratory Facilities (Secondary Barriers)

- BSL-1 and 2 Facilities PLUS:
  - Separate building or isolated zone
  - Double door entry
  - Directional inward airflow
  - Single-pass air; 10-12 air changes/hour
BSL-1 and 2 Facilities PLUS (cont.):

- Enclosures for aerosol generating equipment
- Room penetrations sealed
- Walls, floors and ceilings are water resistant for easy cleaning
**Biosafety Level 3**

Laboratory Facilities (Secondary Barriers)

- **BSL-1 and 2 Facilities PLUS:**
  - Vacuum lines protected with liquid disinfectant traps or HEPA filters
Facility Design
(Tertiary Barriers)

- Lab structure
- Lab ventilation
Biosafety Level 3
Standard Microbiological Practices

As in BSL - 1
and - 2
Biosafety Level 3

Safety Equipment (Primary Barriers)

- BSL-1 and 2 Safety Equipment PLUS:
  - BSC class II or III to manipulate infectious material
Biosafety Level 3

Safety Equipment (Primary Barriers)

- BSL-1 and 2 Safety Equipment PLUS:
  - *Respiratory protection may be indicated*
BSL-2 Special Practices PLUS:

- Work in certified BSC
- Use bioaerosol-containing equipment
- Decontaminate spills promptly
Supervision

- Supervisor is a competent scientist experienced working with agents
  - Establishes criteria for entry
  - Restricts access
  - Develops policies/procedures
  - Trains lab personnel
Lab Personnel

- *Strictly follow guidelines*
- *Demonstrate proficiency*
- *Receive appropriate training*
- *Report incidents*
- *Participate in medical surveillance*