BSL 1

Note: This document does not cover all requirements listed in the 5th edition BMBL (Biosafety in Microbiological and Biomedical Laboratories) 5th Ed., 2007, only some of the changes. Changes at BSL-1 also are applicable to BSL-2, 3, 4.

1. The laboratory supervisor must enforce the institutional policies that control access to the laboratory. Previously, laboratory access was to be limited or restricted at discretion of the laboratory director (BMBL, A.1)

2. Decontaminate work surfaces after completion of work and after any spill or splash of potentially infectious material with appropriate disinfectant. This is a new requirement for BSL-1. Previously, decontamination was required at least once per day and after spills at BSL-2 (BMBL, A.7)

3. Materials to be decontaminated outside the immediate laboratory must be placed in a durable, leak proof container and secured for transport. Previously, these containers were to be “closed” for transport. (BMBL, A.8)

4. Signage with the universal biohazard symbol must be posted at entrance to the laboratory when infectious agents are present. Previously, signage was optional at BSL-1. (BMBL, A.9)

5. Agent information should be posted in accordance with institutional policy. Previously, the name of the agent had to be posted. Flexibility provided by the new edition streamlines posting when several agents are in use and aids biosecurity when high-risk agents are being used (BMBL, A.9)

6. The laboratory supervisor must ensure that laboratory personnel receive appropriate training on duties/precautions initially, annually, and as policy/procedure changes occur. Previously, training frequency was not specified (BMBL, A.11)

7. Laboratory personnel and particularly women of child-bearing age should be provided with information regarding immune competence and conditions that may predispose them to infection. Personnel with predisposing conditions should be encouraged to self-identify with the healthcare provider for appropriate counseling and guidance. These are new requirements for BSL-1. Previously, at-risk personnel were not allowed in the laboratory unless cleared by the laboratory director; this type of communication was not required until BSL-2. (BMBL, A.11)

8. Gloves must be worn to protect hands from exposure to hazardous materials. Glove selection should be based on an appropriate risk assessment. The previous BSL-1 requirement was that gloves should be worn if skin on the hands is broken or a rash is present (C.4.) Gloves are removed and hands are washed when gloves become contaminated, the integrity of the gloves has been compromised, work with hazardous materials has been completed, as well as, before leaving the laboratory and when “otherwise necessary.” New requirement for BSL-1. Previously, similar requirements were first seen at BSL-2 (BMBL, C.4)

9. Chairs used in laboratory work must be covered with a non-porous material that can be easily cleaned and decontaminated with appropriate disinfectant. This is a new requirement.