Containment Level 3 Operational Practices for use with specified RG2 organisms

**The use of needles, syringes and other sharp objects should be strictly limited as many (but not all) of the pathogens requiring the additional CL3 operational procedures are transmitted through the percutaneous route of infection. Please refer to Section 3.1.1.15 for guidelines on use of sharps.

- **All activities with infectious materials are conducted in a BSC;** if this is not possible, other primary containment devices in combination with personal protective clothing and equipment must be used; no work with open vessels containing infectious materials is conducted on the open bench.

- There must be a program for the management of biological safety issues in place with appropriate authority to oversee safety and containment practices.

- Everyone entering the containment laboratory must have completed a training course in procedures specific to the containment laboratory and must show evidence of having understood the training; training must be documented and signed by the employee and supervisor.

- A protocol specific to the operation of the laboratory while in CL3 operational mode must be developed and read by personnel; employees must certify in writing that they have understood the material in the protocol. General protocols must be supplemented with protocols specific to each project in progress.

- Personnel must have demonstrated proficiency in microbiological practices and techniques.

- Routine laboratory cleaning must be done by personnel using the containment facility or by specific personnel dedicated and trained for this task.

- The containment laboratory must be kept locked when it is unoccupied.

- Infectious agents requiring CL3 operational practices should be stored inside the containment laboratory; agents stored outside of the zone must be kept locked, in leakproof containers; emergency response procedures are to take into account the existence of such infectious agents outside of the containment laboratory.

- Personal items such as purses and outdoor clothing must not be brought into the containment laboratory.

- Personnel entering the containment laboratory must remove street clothing and jewelry, and change into dedicated laboratory clothing and shoes; dedicated laboratory clothing and shoes must be removed before leaving the containment laboratory in a manner that minimizes any contamination of the skin with the potentially contaminated dedicated laboratory clothing. The use of full coverage protective clothing (i.e., completely covering all street clothing) is an acceptable alternative. When a known or suspected exposure may have occurred, all clothing, including street clothing, requires appropriate decontamination. Laboratories manipulating organisms, such as HIV, that are not infectious via inhalation, are not required to remove street clothing.
• An additional layer of protective clothing (i.e., solid-front gowns with tight-fitting wrists, gloves, respiratory protection) may be worn over laboratory clothing when infectious materials are directly handled and should be removed after completion of work (e.g., dedicated for use at the BSC).

• Centrifugation of infectious materials must be carried out in closed containers placed in sealed safety cups that are unloaded in a BSC.

• Animals or arthropods that have been experimentally infected must remain in the laboratory or appropriate animal containment facility.

• When a known or suspected aerosol exposure may have occurred, protocols based on a local risk assessment must be in place to determine whether showering is required on exit from the laboratory. If no shower is available inside the containment laboratory, a procedure must be in place to replace a body shower before exiting the laboratory in the event of a spill.

• In the event of life-threatening emergencies, personal health and safety are a priority; exit protocols must be established whereby routine procedures might be bypassed; a reporting area must be identified where further steps must be taken (e.g., disinfecting footwear, changing, showering).

Note that the general practices and the level 2 operational procedures must also be followed in additions to the requirements above. Please refer to Chapter 3 of the Laboratory Biosafety Guidelines 3rd Edition for these requirements.