

University of Pittsburgh Safety Manual	EH&S Guideline Number: 05-018	
Subject: USE OF TOOLS / EQUIPMENT INSIDE OF BSL-3 CONTAINMENT AREAS	Effective Date 04/04/11	Page 1 of 2

USE OF TOOLS / EQUIPMENT INSIDE OF BSL-3 CONTAINMENT AREAS

1. Scope

This SOP describes the biosafety considerations and work practices when maintenance personnel enter and bring tools / equipment into and use tools / equipment inside of Biosafety Level 3 (BSL-3) laboratory spaces at the University of Pittsburgh. This SOP incorporates recommendations from the *CDC/NIH Biosafety in Microbiological and Biomedical Laboratories*, 5th edition, the University of Pittsburgh Department of Environmental Health and Safety (EH&S), and the University of Pittsburgh Biohazard Committee.

All items including tools and maintenance equipment that is required to be removed from BSL-3 containment areas **MUST** be made of materials (plastics and metal) that can be chemically decontaminated or autoclaved prior to their removal from the BSL-3 containment areas. EH&S recommends that tools and maintenance equipment to be used inside of BSL-3 containment areas should be permanently stored inside the containment area to eliminate the decontamination procedure.

2. Procedure

2.1. Considerations for bringing tools / equipment into of BSL-3 containment areas –

The following guidelines are provided to assist in bringing tools / equipment into BSL-3 containment areas to make necessary repairs to research equipment and facility dedicated systems.

- 2.1.1. All tools / equipment should be made of material that can be decontaminated via chemical disinfection or steam autoclave.
- 2.1.2. For electronic equipment check with manufacturer's specifications to determine if chemical disinfection will damage the equipment. If damage would occur due to chemical disinfection, consult EH&S for equipment-specific measures.
- 2.1.3. No cloth material (such as a tool belt) should be brought into BSL-3 containment areas.
- 2.1.4. Tools made of metal can be autoclaved prior to removal from the BSL-3 containment areas. The autoclave procedure involves high temperature steam that can damage plastic or rubber parts of tools and equipment.

2.2. Decontamination procedure for tools / equipment that can not be autoclaved prior to removal

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- 2.2.1. Tools with components made of plastic, rubber, metal and/or electronics **MUST** be surface decontaminated or treated in a chemical submersion bucket (or tank) with an EPA-registered disinfectant prior to removal from the BSL-3 containment areas.
 - 2.2.2. Consult EH&S or DLAR site supervisor for proper disinfectant in use in the facility.
 - 2.2.3. Decontamination process should occur in exit rooms prior to removal of facility required personal protective equipment (PPE).
 - 2.2.4. Disinfectant should be liberally applied to all surfaces of the tools and equipment and allowed to stand on the tools for a minimum of 15 minutes prior to wiping dry or allowing to air dry.
- 2.3. Decontamination procedure for tools / equipment that can be autoclaved prior to removal**
- 2.3.1. Tools made of metal can be autoclaved prior to removal from the BSL-3 containment areas.
 - 2.3.2. Autoclave cycles should be run at a minimum temperature of 121° for 30min sterile cycle and 5 minute exhaust cycle.
 - 2.3.3. Autoclave cycles should be run by designated site personnel. Tools should be placed in available biohazard bags or containers.
- 2.4. Decontamination procedure for tools / equipment that remain in a multiple agent/multiple user BSL-3 laboratory suites**
- 2.4.1. Tools that are used and remain in BSL-3 containment in which multiple biological agents are used should be chemically decontaminated or autoclaved prior to storage.