University at Buffalo
The State University of New York

Environment, Health & Safety Services Policy

Laboratory Equipment Service	***Document No.: Campus 02-102***
	Revision No.: 01 Date: 3/15/04
	Approved By: M. Dupre

1.0 Purpose: The purpose of this document is to prescribe procedures to be followed to safely and properly prepare laboratory equipment, which may potentially be contaminated, by hazardous, radiological, or biological materials, for service or repair by University Facilities Operations, or by commercial service vendors. Adherence to this procedure will ensure that service employees are not needlessly exposed to potentially dangerous materials, and that no materials are inappropriately released to the environment.

2.0 Scope:

2.1 This procedure applies to all potentially contaminated equipment located within any laboratory where radiological, hazardous chemical or biologically hazardous materials are used, created, or stored. This may include but is not limited to fume hoods, autoclaves, centrifuges, refrigerators, freezers, and incubators (hereafter "equipment").

2.2 This procedure applies to equipment located within both campus facilities and off-campus facilities.

3.0 Responsibilities:

3.1 Deans, Directors, and Department Chairs – will ensure that all Faculty and Principal Investigators receive a copy of this procedure, and are instructed that it is necessary to comply with the terms of this procedure.

3.2 Faculty and Principal Investigators – will ensure that all laboratory personnel have access to a copy of this procedure, that the procedure is followed, that any unusual problems are referred to Environment, Health & Safety (EH&S) Services for discussion and resolution. A copy of this procedure will also be provided to any commercial service vendors as well.

3.3 Laboratory Staff and Students – will follow this procedure, and will refer any problems or questions to their supervisor.

3.4 Environment, Health & Safety Services – will provide consultative support, will assist in managing unusual or special problems, and will authorize any necessary deviations from this procedure.

3.5 University Facilities Operations – will refrain from servicing or contacting equipment that has not been cleared as outlined in this procedure. A copy of this procedure will also be provided to any commercial service vendors as well.

4.0 Definitions:

4.1 Employees: University at Buffalo Facilities employees

4.2 Equipment: Any laboratory equipment used for research or storage of research materials, including but not limited to fume hoods, autoclaves, centrifuges, refrigerators, freezers, incubators, etc.
4.2 Materials: Hazardous, radiological, or biological materials
4.3 EH&S: Environment, Health & Safety Services
4.4 Safe or Safety: Having no exposure to potentially dangerous concentrations of materials
4.5 Vendor: Commercial service/repair vendors or contractors

5.0 **Procedures:** Implement the "*Checklist for "OK to Service" Certification of Equipment Containing Hazardous Chemicals and Biological Agents*" and the "*Checklist for "OK to Service" and Unrestricted Release of Equipment Used with Radioisotopes*" forms.

5.1 Material Removal – In general, before servicing, all hazardous chemical, radiological, or bio-hazardous materials shall be removed from equipment and stored or disposed of in accordance with established procedures. However, materials may remain within equipment if there will be no direct contact with the materials in the course of servicing the equipment. For example materials may remain within a refrigerator or freezer while it is being serviced as long as service providers need not work inside the refrigerator, the materials are isolated inside the refrigerator to prevent contact, and there is no dripping or leakage from the interior. This presumes that there is no need to tip or invert the equipment.

5.2 Decontamination –

5.2.1 In general, all hazardous chemicals, radiological, or bio-hazardous materials shall be removed from equipment surfaces (both internal and external) before the equipment is serviced. However, as outlined in Material Removal above, it may be appropriate to only partially decontaminate the equipment in consideration of the nature of the service to be performed, and which surfaces workers are expected to come in contact with.

5.2.2 It is strongly recommended for service workers and the lab personnel to discuss the proposed service in advance to mutually determine what level of decontamination is required.

5.2.3 Decontamination shall be performed as outlined herein:

Radiological Materials – radioactive contamination shall be removed by standard radiological decontamination methods. The maximum level of residual radioactivity shall be as determined by EH&S policy or by Chapter I, Part 16 of the State Sanitary Code; whichever is more limiting. Surveys shall be performed to demonstrate that the decontamination limit

has been achieved. These surveys shall be documented, and records shall be available for inspection by EH&S or by the Department of Health. All waste generated in the course of decontamination shall be disposed of as radioactive waste. After decontamination radioactive labels and stickers shall be removed, defaced, or temporarily covered.

Chemical Residues – shall be removed, neutralized, or otherwise rendered non-hazardous using an appropriate method determined by the chemical and physical characteristics of the contaminant(s), and the physical nature of the equipment. Hazard labels shall be removed, defaced, or temporarily covered as appropriate. The decontamination method shall be documented, and records shall be available for inspection by EH&S. Any incidental wastes shall be disposed of properly.

Bio-hazardous Contaminants - shall be removed or rendered non-pathological. Typically this will be accomplished using a bleach solution, other chemical means, and or by steam sterilization. Hazard labels shall be removed, defaced or temporarily covered as appropriate. The decontamination method shall be documented, and records shall be available for inspection by EH&S. Any incidental wastes shall be disposed of properly

5.2.4 If decontamination cannot be achieved, it may be appropriate to cover contaminated surfaces with impermeable materials such as by polyethylene sheet. If this is done, any contamination, which has been temporarily covered over, must be clearly labeled and explained to service personnel. The covered material shall be disposed of as appropriate for the contaminant hazard.

5.3 Certification and Labeling - Once Material Removal and Decontamination have been completed the Principal Investigator (or other authorized individual as designated in writing), shall affix a copy of the "*Equipment "OK to Service" Certification"* form to the equipment. All sections of the form shall be completed with the relevant information or "NA" as appropriate. A copy of the form will be retained, and shall be available for inspection by EH&S.

5.4 Equipment with No Potential for Contamination - Some equipment within laboratories has essentially no potential for contamination. This would include computers and office equipment, audio-visual equipment, cameras, optical equipment, food storage refrigerators, etc. No decontamination of this equipment is required and the "No Potential for Contamination" box shall be checked on the release form. In addition to this check off, the name and date section should be completed, and the other sections may be left blank.

5.5 Equipment Service - Once the equipment release/certification form has been affixed to the equipment it may be serviced. University Facilities Operations will not service any equipment, which has not been tagged. Laboratory personnel should be readily available to answer questions, and should explain any special considerations to service personnel.

5.6 Special Problems - All special or unusual problems will be referred to EH&S for resolution. Any deviation from the requirements of this procedure must be approved in writing by EH&S.

6.0 **Document Management:** This procedure shall be reviewed once every two years, or as changes require.

7.0 Associated Documents:

7.1 "Campus Commitment to Safety," University at Buffalo, Office of the Provost, Office of the Senior Vice President, April 3, 2001.
7.2 Radiation Protection Services "Radioactive Materials Safety Manual".
7.3 Chapter I, Part 16 of the State Sanitary Code (NYCRR Title 10).

8.0 Document Revision History:

Revision	Section(s) Changed	Change(s) Made:	Date
00		Original	4/17/02
01		New Format	3/15/04

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10.0 Associated Forms:

Checklist for "OK to Service" Certification of Equipment Containing Hazardous Chemicals and Biological Agents

Checklist for "OK to Service" and Unrestricted Release of Equipment Used with Radioisotopes

Equipment "OK to Service" Certification Form