WFSM ENVIRONMENTAL HEALTH & SAFETY WFUBMC LAB PERSONAL PROTECTIVE EQUIPMENT (PPE) PROGRAM	
Approved by: David A. Brown, Director, EH&S	*Effective Date:* *January 2011* *Revised Date: July 2012*

POLICY. It is the policy of WFSM to comply with all applicable health, safety and environmental protection laws, regulations and requirements. This policy regarding personal protective equipment has been established in fulfillment of Title 29 of the Code of Federal Regulations, Part 1910, Subpart I which states that "protective equipment, including personal protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers, shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards of processes or environment, chemical hazards, radiological hazards, or mechanical irritants encountered in a manner capable of causing injury or impairment in the function of any part of the body through absorption, inhalation or physical contact."

PURPOSE.

1. Establish and affirm the responsibilities for compliance with this policy.

2. Make clear the standard personal protective equipment requirements which pertain to all research and clinical laboratory environments.

3. Define key hazardous materials concepts and terms.

4. Sanction the Annual PPE Certification and training requirement.

SCOPE. This policy regarding personal protective equipment requirements applies to all research laboratory faculty, staff, students and authorized visitors. The requirements also apply to the clinical laboratories operating under the auspices of the Wake Forest University School of Medicine.

RESPONSIBILITIES

1. The Dean and President, WFSM, has overall responsibility for compliance with health and safety requirements.

2. The Senior Associate Dean for Research is responsible for the implementation of this policy in all research laboratories.

3. The Institutional Biosafety Committee, Chemical Safety Committee and the General Radiation Safety Committee are responsible for promoting a safe working environment in all research and clinical laboratories.

4. Department chairs are responsible for promoting and enforcing this policy in their respective research and clinic areas.

5. Principal Investigators and laboratory management staff are responsible for complying with this policy and ensuring staff compliance as it relates to research and clinical operations.

6. All staff, students and authorized visitors working in laboratory areas are responsible for following laboratory safety requirements and for wearing personal protective equipment as defined in this policy and in corresponding laboratory specific training.

7. EH & S is responsible for assessment of laboratories in regard to enforcement of this policy. If failure to abide by this policy poses an immediate danger to life or health, the Director is authorized to call for the temporary cessation of the specific activity until the hazardous condition is alleviated.

PROCEDURES

STANDARD PERSONAL PROTECTIVE EQUIPMENT (PPE) USAGE. The following requirements pertain to all research and clinical laboratory environments utilizing hazardous chemical, biological, and unsealed radiological materials. These requirements extend to the use of nanomaterials, lasers, and other hazardous agents. Deviations from the below requirements, including defining of specific hazardous materials use areas within rooms, may be permitted under certain conditions and requires written approval from Environmental Health and Safety.

1. Full length pants, or equivalent, and close-toed shoes must be worn at all times by all individuals that are occupying the laboratory area. The area of skin between the shoe and ankle should not be exposed.

2. Protective gloves must be worn while utilizing any hazardous chemical (including nanomaterials), biological or unsealed radiological materials. Gloves must be appropriate for the material being used. The Safety Data Sheet (SDS) should be referenced when determining the effectiveness of a glove for a particular material. The EH&S website offers guidance on glove selection.

3. Laboratory coats, or equivalent, are required to be worn while working on, or adjacent to, all bench top procedures utilizing hazardous materials (as defined in this policy). Lab coats must be appropriately sized and buttoned to their full length. Sleeves must be sufficient to prevent skin exposure while wearing gloves.

4. Each department, research or clinic unit is responsible for providing personal protective equipment for all laboratory workers (including students, visitors and affected observers).

Professional laundry services must be provided for laboratory coats. They may not be laundered at personal residences or at public laundry facilities.

5. Personal protective equipment may not be worn outside of defined laboratory areas in order to reduce the movement of contaminants. Lab coats may only be worn outside of the laboratory when traveling directly to an adjacent laboratory area. Protective gloves must not be worn in any public area outside of the laboratory, i.e. hallways, elevators, offices.

6. Frequent and effective handwashing is required in order to promote proper chemical and biological hygiene.

7. Eye protection and/or equivalent engineering controls (fume hoods and biological safety cabinets) must be used while handling hazardous materials at the bench or engaging in hazardous activities, e.g. laser operations. All eye protection equipment must be ANSI approved and appropriate for the work activity.

8. Some operations and procedures may warrant additional and/or more substantial personal protective equipment. Full use of SDS information, standard operating procedures, institutional policies, regulatory requirements and EH&S professional advice is expected at the principal investigator and laboratory supervisory levels.

9. Damaged and/or defective personal protective equipment should be taken "out of use" immediately.

Personal protective equipment standards may be relaxed when an individual is working at a computer work station within a lab and there is no potential exposure to adjacent hazards.

DEFINITIONS OF HAZARDOUS MATERIALS AND ACTIVITIES. The term "hazardous materials" has a broad application when used in connection with research and clinical laboratories. The principal investigator in consultation with EH&S is responsible for evaluating the hazard potential of materials.

The Chemical Management Inventory System (CMIS) records hazard information for most laboratory chemicals present in research and clinical laboratories. Additionally, CMIS provides access to Safety Data Sheets (SDS).

The following materials are considered hazardous for the purposes of illustrating this policy.

1. Any unsealed radioactive material.

2. Biohazardous materials, including select agents

3. Carcinogens

4. Reproductive toxins, teratogens, mutagens

5. Toxic and highly toxic chemicals

6. Flammable chemicals

7. Air or water reactive chemicals

8. Corrosive chemicals

9. Class 3B or 4 lasers

10. Nanomaterials

ANNUAL PPE CERTIFICATION REQUIREMENT. Due to the nature of a research environment, the hazard profile of a laboratory may change periodically. In order to ensure adequate protection for laboratory workers, the Principal Investigator is required to certify initially and annually that:

1. Each laboratory worker's Hazard Assessment has been verified.

2. Personal protective equipment has been calibrated to the Hazard Assessment.

3. Appropriate training has been provided (according to the Hazard Assessment) to affected laboratory workers.