SUMMARY:

It is the policy of Coastal Carolina University that work involving hazardous or noxious materials which are toxic, radioactive, possesses unpleasant odors, or are volatile or harmful will be conducted within a hood or exhaust system designed to contain and remove hazardous dusts and vapors from the area and protect the worker.

POLICY:

I. PROPER FUME HOOD USE

It is the policy of Coastal Carolina University that work involving hazardous or noxious materials which are toxic, radioactive, possesses unpleasant odors, or are volatile or harmful will be conducted within a hood or exhaust system designed to contain and remove hazardous dusts and vapors from the area and protect the worker. The location, use, and maintenance of hoods and exhaust systems will follow OSHA, Coastal Carolina University, and other health and safety practices.

A. Responsibility

The responsibility for a proper hood/exhaust system program is as follows:

1. Supervisor:

   a. Ensures the proper type, design, construction, and number of hoods are procured, available, and used.

   b. Ensures employees are correctly trained and knowledgeable of the use and conditions requiring the use of hoods.

   c. Requires employee compliance with the University policies.
d. When necessary, schedules or arranges time for hood use for certain experiments as determined by conditions and the nature of the work.

e. Requires and reviews all proposed uses of hazardous materials for correct utilization of hoods.

2. Employee:

   a. Ascertains, within reason, the correct functioning of hoods before use.

   b. Utilizes hoods according to OSHA regulations and University policy and good safe laboratory practices.

   c. Indicates hoods to be used, when pertinent, in handling hazardous materials that require written protocols.

   d. Suggests, advises, and assists in the selection of hoods and exhaust systems necessary to conduct his/her work safely.

   e. Immediately reports all malfunctioning hoods and initiates a Work Order for repair to be forwarded to Facilities Management.

   f. Immediately informs the Department of Environmental Health and Safety Officer and supervisor if hood has inadvertently or inappropriately been used for materials which could leave hazardous residues.

3. Maintenance Supervisor:

   a. Safely, properly, and routinely installs, tests, services, maintains, and repairs hoods and exhaust systems to ensure they are meeting or exceeding manufacturers’ specifications and the needs of the user as determined by the user and the Department of Environmental Health and Safety Fire or Safety Officer.

   b. Immediately repairs malfunctioning hoods and exhaust systems and arranges for periodic cleaning and replacement of filters.

4. Department of Environmental Health and Safety Fire or Safety Officer:

   a. Ensures proper utilization of hood and exhaust systems according to University policy and good health and safety work practices.

   b. Quarterly inspects and monitors hood exhaust systems for compliance with requirements.
c. Coordinates with the user and Facilities Management and arranges for the servicing, decontamination, etc. necessitated by a potential hazard, thus requiring special expertise (e.g., improper use of perchloric acid).

B. Use of General Utility Hoods

1. The basic principle is to provide a capture or control face velocity to prevent generated contaminants from escaping.

2. Construction of the hood and support equipment will be from materials as corrosive resistant as required, as determined by the nature of the work for which it is intended.

3. A minimum face velocity of 200 fpm, with the sash open to the indicated height, is required for all University general utility hoods to be used for routine work; higher face velocities may be required for certain high hazard work, radioactive operations and by hoods in poor locations. These areas or conditions will be specified by the Fire and Safety Officer.

4. Are to be used for volatile, hazardous, and odoriferous materials for which special areas (e.g., high hazard rooms, etc.) are not required.

5. The user first determines, to the extent possible, that the hood and its support utilities are functioning adequately and properly.

6. Containers of hazardous materials will be opened and the containers used only in the hoods. Waste and contaminated material will be contained in a closed system (i.e. flask, jar, plastic bag, etc.) before removal from the hood.

7. At no time should hazardous material be permitted to pass into the laboratory air.

8. In the event of a hood system malfunction which lowers or eliminates worker protection, the user will immediately secure and contain all hazardous materials to minimize exposure and inform Facilities Management and the Department of Environmental Health and Safety Fire or Safety Officer. If an emergency situation exists, the area should be immediately evacuated, closed off, and posted.

9. The sash will be lowered to a height which offers maximum protection yet permits safe and efficient completion of the work.

10. Malfunctioning hood utilities (air, gas, vacuum, water) should be reported to the appropriate authorities as soon as noted and a repair work order issued. If the equipment is not required for the experiment, the hood may be used.

11. Immediately upon completion of an experiment, the hood should be cleaned and all wastes, unnecessary equipment, chemicals, etc. be removed.
12. If an experiment or equipment, chemicals, etc. must be kept in the hood longer than eight hours, all hazardous materials will be clearly and accurately labeled.

13. Unlabeled chemicals, unused equipment, materials, etc. are subject to removal and/or disposal.

14. Placement of shelves, equipment, etc. which impede the proper functioning of the hood are forbidden.

15. Hoods are not to be used for storage except for the built-in, properly vented areas of the hood designated for the purpose.

16. When more than one employee is using the same hood, steps must be taken to ensure work is done safely. If crowding or incompatible materials or reactions are to be used or run, time must be scheduled, if necessary, by the supervisor.

17. Hoods must be constructed from materials suitable and approved for use with the agent(s) to be used.

18. Air flows, design, specifications and utilities, and their accessibility must be suitable and approved by the Fire and Safety Officer, Facilities Planning, Facilities Management, and the user.

19. All duct systems, motors and support equipment, and construction material must meet the needs of the experimenter, OSHA regulations and University requirements and be in accord with nationally-recognized standards.