



I. Purpose Statement

The university has been issued a Type A broad scope specific radioactive materials license by the South Carolina Department of Health and Environmental Control (DHEC) to use various forms of specifically-licensed radioactive materials for research and development. This license type requires the university to form a Radiation Safety Committee (RSC) to oversee and approve all uses of specifically-licensed radioactive material.

To promote safety per published guidelines and/or regulations, the committee also oversees the use of generally-licensed and license-exempt radioactive materials, equipment containing X-ray tubes, Class 3B and 4 lasers, unenclosed hazardous forms of visible, ultraviolet and/or infrared light, and devices that generate magnetic fields in occupied spaces above 5 Gauss.

II. Membership

The Committee Chair shall be a faculty member who is an approved authorized user of radioactive material at the Associate or Full Professor level. The Radiation Safety Officer (RSO) shall be a full member of the Committee. Other members of the Committee shall include necessary faculty and/or staff employees that are selected by the RSO in consultation with the Committee Chair and must be approved by the full Committee. A management representative from university staff at the Bureau Chief level or higher must also be a member per DHEC regulatory requirements. Members serve indefinitely until they inform the Chair of resignation or are no longer a university faculty or staff member.

III. Procedures

The Radiation Safety Committee shall have final authority to approve and dis-approve all uses of ionizing and non-ionizing radiation and magnets (radiation), authorize facilities for use, and authorize personnel.

The Committee shall meet quarterly. A quorum shall consist of the Chair, the RSO and at least three other Committee members. The RSO in consultation with the Committee Chair shall draft the agenda items for discussion to include previous quarter events and generated records including incidents; a review of submitted applications for initial use of hazardous or regulated forms of radiation; Radiation Safety Officer approved



Procedures (continued)

authorization amendments; a review of occupational and area exposure records from recent dosimeters submitted for analysis and any bioassays for internal exposures conducted; a review of quarterly inventory record verifications between the Radiation Safety Office and authorized PIs from the prior quarter; any amendments to the university's license for radioactive material use; and any other topic deemed necessary for discussion related to radiation safety.

Meeting minutes shall be drafted for review and approval at the next quarterly Committee meeting. All approved minutes shall be kept on file in the Radiation Safety Office.

IV. Process to Approve Use of Hazardous and Licensed Forms of Radiation

Initial applications for use of radiation shall be initially submitted to the Radiation Safety Office staff. Radiation Safety staff and the RSO will review the application and all required submitted procedures and verify that all necessary equipment and procedures are in place to protect authorized users occupationally, and the general public, utilizing current regulations and currently accepted guidance documents including DHEC (radioactive material and X-ray regulations); the American National Standards Institute series Z136.1 for the safe use of lasers, and the American Conference of Government Industrial Hygienists (ACGIH) for hazardous forms of light and magnets.

Once all procedures, equipment and facilities for the new applicant are deemed acceptable by the Radiation Safety staff and the RSO, the application and all procedures will be sent to the Radiation Safety Committee for review and approval. To be approved; the Committee Chair, the RSO, and at least three other members of the Committee must agree to the approval at the next quarterly meeting with the approval documented in the meeting minutes. Alternatively, an application for approval can be acted upon outside of the quarterly Committee meetings via email correspondence.



V. Amendment Requests to an Approved Authorization

All amendment requests to an approved application must be submitted by the Authorized PI to the Radiation Safety Office. Because amendments may be necessary for urgent new tasks due to research or grant supported timelines; the RSO may approve the amendment request without seeking Committee approval unless the RSO deems that a significant change to occupational or public exposures, or to general safety, will occur in which case Committee approval of the amendment is also required. Any amendment requests approved by the RSO will be discussed at the next quarterly Committee meeting.

VI. Radiation Safety Officer

A Type A Broad Scope Research and Development license requires the university to employ a Radiation Safety Officer (RSO) pursuant to the current job description on file with human resources. The RSO must report to a Bureau Chief or higher-level staff member that has direct involvement with the Radiation Safety Program. The RSO must be a full member of the Radiation Safety Committee per DHEC regulation; and be named on the specific license document issued by DHEC.

The RSOs primary responsibilities are:

1. Provide guidance to ensure that radiation possessed and used by the university for research and teaching purposes is compliant with applicable government regulations, licensing and/or registration conditions and applicable accepted guidance documents for safe use;
2. Ensure that principal investigators and laboratory staff and students only use radiation as approved by the Radiation Safety Committee;
3. Instruct and/or arrange for the instruction of personnel in proper radiation protection practices;
4. Conduct or have conducted radiation surveys where indicated and keep records of such surveys, including summaries of corrective measures recommended and/or instituted;
5. Provide guidance to ensure appropriate use of monitoring devices and appropriate personal protective equipment where required;
6. Investigate each known or suspected case of excessive or abnormal radiation exposure to determine the cause and take steps to prevent its recurrence;



RSO Primary Responsibilities (continued)

7. Assure that, where required, appropriate interlock switches and warning devices are operating and that appropriate postings are properly located;
8. Be immediately available to serve as a point of contact with government authorities and give assistance in case of emergency (e.g. damage, fire, theft, etc.);
9. Assure that the proper authorities (i.e. the Department, local or University police, U.S. Department of Transportation, etc.) are notified promptly in case of accident, damage, theft, or loss of radiation;
10. Assist and provide guidance that the terms and conditions of government issued licenses or certifications are met and that the required records are maintained and reviewed for compliance;
11. Have the authority granted by university administration to immediately terminate an activity involving radiation should the RSO deem the activity immediately hazardous to university faculty, staff, students or public safety.