



UT Health Science Center: RSP00 Organization of the Radiation Safety Program	
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INTRODUCTION

The authority, structure, personnel, and responsibilities of individuals for the radiological control program for University of Tennessee Health Science Center (UTHSC) are described in this Section.

AUTHORITY

Authorization for University of Tennessee Health Science Center to possess, store, and use radioactive materials is stipulated in the broad-scope radioactive materials license issued by the Tennessee Department of Environment and Conservation, which has assumed United States Nuclear Regulatory Commission (NRC) regulatory authority within the State of Tennessee (as stipulated by the Atomic Energy Act). Section 274 of the Atomic Energy Act provides a statutory basis under which NRC relinquishes to the States portions of its regulatory authority to license and regulate byproduct materials (radioisotopes); source materials (uranium and thorium); and certain quantities of special nuclear materials. The broad-scope license grants UTHSC the use of radioactive materials for teaching, research, and other activities through the operation of an internal radiological control program. Copies of the license are stored and maintained by the Radiation Safety Officer (RSO).

Authorizations for individual campus activities are contained in the minutes of the UTHSC Radiation Safety Committee (RSC), in campus policy statements, and in approved individual campus radiation safety manuals. Special authorization for unusual circumstances may be required and will supersede the contents of this manual. Regulations or campus practices may change. Such changes will be implemented by letters/e-mails to all users. Such notifications shall take precedence over this manual.

STRUCTURE

The structure, roles, and responsibilities of the RSC and RSO are detailed in the policy titled "University of Tennessee Health Science Center Radiation Safety Committee Authority, Functions and Membership". The RSC has the general responsibility to oversee the proper and safe use of

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all sources of ionizing radiation and nonionizing radiation known to present a potential hazard to human health (including lasers). The Radiation Safety Committee reports to the Vice Chancellor for Research through the Senior Associate Vice Chancellor. The Radiation Safety Officer, while working collaboratively with the RSC to ensure a safe and compliant program, reports directly to the Director of Research Safety Affairs.

APPROVAL

Individuals who wish to use radiation producing equipment or radioactive materials in research, development, teaching, or demonstration projects must obtain prior approval from the Campus Radiation Safety Committee. Request shall be formalized by completion and submission of an X-ray Registration or an Application for the Use of Radioactive Materials to the Radiation Safety Officer. Users shall be notified of project approval, in writing, from the Radiation Safety Officer. User approvals are only issued to principal investigators (faculty, or persons deemed qualified by the Radiation Safety Committee). Radionuclides or radiation producing equipment, and their proposed uses required for the project must be sufficiently described to permit an adequate radiological safety assessment. The applicant shall list the total activity of each radionuclide that he/she anticipates using per experiment, and the total activity of each radionuclide that he/she expects to possess on hand at any one time on the application. The use of radiation producing equipment requires separate registration by the Tennessee Department of Environment and Conservation. Each location where radioactive materials or radiation producing equipment are to be used and/or stored must be specified. This is necessary information for oversight and compliance. Items detailing operational parameters of importance to radiological safety assessment shall be included in the application. Review may include discussions with the applicant and site visits, with specific suggestions for revision of the application. Approval of applications by the Radiation Safety Committee is limited only to matters of radiological safety.

RESPONSIBILITIES

All persons involved with the handling, use, and storage of radioactive materials and radiation sources have the general responsibilities to:

- 1) assure that UTHSC personnel, students, and visitors are not subject to undue radiation exposure.
- 2) assure full compliance with all federal and state regulations.
- 3) assure full compliance with local and state codes and ordinances.
- 4) assure full compliance with all UTHSC regulations and policies pertaining to radiation safety.
- 5) assure full compliance with special project restrictions.
- 6) assure that the integrity and usefulness of UTHSC facilities are not compromised; and

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7) assure that high standards of good practice and safe handling are maintained.

These general responsibilities apply to all individual users, technicians, students, and operating personnel. Each person who handles radioactive materials or radiation producing equipment should recognize that the ultimate success of a radiation safety program lies in responsible actions of individuals in their daily work.

It is the principal investigator's responsibility to ensure the following:

- 1) that all persons involved with radiation related activities under his/her control receive radiation safety training commiserate with their scope of work
- 2) that radiation related activities under his/her control do not deviate from the activities approved by the RSC.

TERMINATION

Individuals who wish to discontinue approval for use of radiation producing equipment or radioactive materials must notify the Radiation Safety Officer in writing or via email at least two weeks in advance that he or she intends to close all laboratories and remove all radioactive materials. Before the close-out survey can be conducted, the principal investigator must demonstrate to the Radiation Safety Officer that all isotope sources have been accounted for and that all laboratory equipment and supplies used in connection with radioactive materials have either been properly decontaminated or properly disposed of. Additionally, all radioactive wastes must be accounted for and properly disposed of. Failure to comply could result in civil or criminal penalties against the responsible individual and/or the University. If a principal investigator has left the University without prior notification to the Radiation Safety Officer, the requirements listed in this section become the responsibility of the head of the department where the principal investigator carried out his or her research activities.

When the requirements set out in this section have been satisfied, a qualified staff member of the Research Safety Affairs Office will conduct a routine laboratory survey including contamination smears and survey meter measurements where applicable. If all samples and measurements are below the action limits, the RSO or RSO designee will enter the laboratory and conduct a visual inspection for any remaining radioactive materials or equipment. If the laboratory appears to be in good order and there is no evidence of remaining radioactive materials or equipment, all signs and notifications related to radioactive materials usage will be removed from the laboratory. The laboratory will then be removed from the survey list and placed in the inactive laboratories file.

LAB CLOSE OUT

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Individuals who wish to continue approval for use of radiation producing equipment or radioactive materials, but wish to close one or more radiation labs, must notify the RSO in writing or via email and follow the applicable procedures mentioned above. These individuals shall clearly state their intent to remain approved users.