

# **RADIATION SAFETY MANUAL**

**FOR THE  
UNIVERSITY OF ILLINOIS COLLEGE OF MEDICINE AT ROCKFORD  
DEPARTMENT OF BIOMEDICAL SCIENCES  
1601 Parkview Avenue  
Rockford, IL 61107-1897**

## **INQUIRIES:**

K. Ramaswamy, Ph.D.  
Chairman

Work: 395-5680

## **EMERGENCY NUMBERS:**

**K. Ramaswamy, Ph.D.**  
Radiation Safety Officer

Work: 395-5893

**Guoxing Zheng, Ph.D.**  
Radioisotope Control Officer

Work: 395-5691

**Dr. Gnanasekar M.**  
Alternate Radioisotope Control Officer

Work: 395-5689

Revised: September 2009

**RADIATION SAFETY COMMITTEE (RSC)  
DEPARTMENT OF BIOMEDICAL SCIENCES**

1. The Radiation Safety Committee (RSC) is empowered to promulgate such radiation safety regulations and procedures for the University of Illinois College of Medicine at Rockford that are necessary to ensure radiation safety within the department, as well as, departmental compliance with governmental regulations regarding radioisotope usage and safety. These regulations and procedures are embodied within the Radiation Safety Manual. The members of the RSC must attend at least two out of four radiation safety meetings. It is up to the Regional Dean to appoint a Chairman of the committee.
2. The minimum composition of the Radiation Safety Committee will be as follows:
  - a) Chairman
  - b) Radiation Safety Officer
  - c) Radioisotope Control Officer
  - d) One member of the UIC-Rockford Administration
  - e) Physical Plant Administrator
3. The duties and responsibilities of the Radiation Safety Committee are:
  - a) Ensure compliance by all individuals using radioisotopes with the safety, handling, use and waste storage procedures outlined in the manual.
  - b) Review and approve, disapprove or specify restrictions on protocol requests and applications to become a licensed radioisotope user to ensure compliance with UIC College of Medicine standards and State licenses or regulations are met.
  - c) Approve or disapprove requested amendments to the Illinois Department of Nuclear Safety (DNS).
  - d) Order shutdown or cessation of work in any facility or by any user when it is evident that a radioisotope-related health hazard exists which is not immediately correctable.
  - e) Disseminate information on radioisotope safety.
  - f) Be responsible for the proper training for students and staff in radiation safety.
  - g) Meet quarterly as a full committee or at the call of the chairperson.
  - h) Maintain a record of the proceedings of each committee meeting.

- i) Amend the Radiation Safety Manual as necessary and to ensure that notice of changes is promulgated to all concerned.
- j) Designate a trained and qualified UIC-Rockford staff member as Radiation Safety Officer (RSO).
- k) Designate a trained and qualified UIC-Rockford staff member as Radioisotope Control Officer (RCO).

#### 4. Licensure by State of Illinois

- a) The Radiation Safety Staff (RSO and RCO) under the direction of the Radiation Safety Committee is responsible for the preparation of the State of Illinois licenses, as well as, any amendments approved by the RSC. The license and amendment requests must be signed by a responsible member of the Administration.
- b) Any licensed user desiring an amendment to the State licenses must submit the appropriate request form (Appendix D) to the RSC.
- c) Any qualified individual wishing to become a licensed radioisotope user must submit appropriate forms (Appendix D) to the RSC requesting an amendment to the State licenses adding his or her name to the license.
- d) A copy of the State of Illinois licenses together with all amendments shall be kept in the office of the Head, Biomedical Sciences Department for inspection.

#### 5. Responsibilities of the Radiation Safety Committee

- a) The full committee will consider all Protocol Requests and Applications to Use Radioactive Isotopes within the college premises as outlined in the statement of Duties and Responsibilities.
- b) If a request is denied, the committee will designate the RCO to convey this information to the requestor, together with the reason(s) for committee non-approval.
- c) If the request is approved, the Request for Approval to Use Radioactive Isotopes Form will be signed and a copy will be given to the RCO.

#### 6. Business Manager/Purchasing Department

- a) The Business Manager for Biomedical Sciences and the Purchasing Department will ensure that no radioactive materials are ordered without certification and signature of the RCO (or RSO).

## PROCEDURE FOR PROCUREMENT OF RADIOACTIVE MATERIALS

### 1. User Responsibilities

- A. The licensed user shall complete the protocol request form (Appendix and submit same to the Radiation Safety Committee.
- B. Isotopes are ordered on a standard purchase order. This order must then be signed by the RSO or RCO. User should try to submit requests as far in advance of need as possible.

### 2. Radioisotope Control Officer's Responsibility

- A. The Radioisotope Control Officer is responsible for:
  - 1) Authorizing all orders for radioactive material and ensuring that the requested materials and quantities are authorized by the license and that maximum possession limits are not exceeded.
  - 2) To inspect isotope packages for leakage, contamination and compliance to purchase order.
  - 3) The Radioisotope Control Officer will maintain a Source Control Log and oversee the user's Waste Storage/Disposal Log. These logs will be used to ascertain the amount of radioisotope on hand. The maximum permissible limit will include all radioisotopes on the local college site, i.e., unused, in use, and waste isotopes.
- B. If an applicant is to use radioisotopes and has been approved by the Radiation Safety Committee, the RCO can initiate the proper isotope purchase order.
- C. Only the RCO (or the RSO in his absence) is authorized to initiate purchase orders for radioisotopes.

### 3. RSO responsibilities:

- A. Responsible for State license renewal and all contact with IDNS.
- B. Responsible to organize and conduct radiation safety training seminars.
- C. Responsible for overseeing and guiding the cleanup of isotope spills.
- D. Responsible for overseeing RCO.

4. Responsibilities of the Chairman, Radiation Safety Committee:
  - A. The chairman, upon receipt of a protocol application (Appendix D), will disseminate copies of the request to the members of the RSC.
  - B. The chairman will add the request to the agenda of the next scheduled full committee meeting.
  - C. If action on the request is necessary before the next scheduled full committee meeting, the chairman will contact the RSO and a member of the committee to solicit the majority opinion in this manner. In general, users should be discouraged from necessitating this procedure
  
5. Responsibilities of the Radiation Safety Committee:
  - A. The full committee will consider all Protocol Requests and Applications to Use Radioactive Isotopes within the college premises as outlined in the statement of Duties and Responsibilities.
  - B. If a request is denied, the committee will designate the RCO to convey this information to the requestor, together with the reason(s) for committee non-approval.
  - C. If the request is approved, the Request for Approval to Use Radioactive Isotopes Form will be signed and a copy will be given to the RCO.
  
6. Business Manager of Biomedical Science/Purchasing Department:
  - A. The Business Manager/Purchasing will ensure that no radioactive materials are ordered without certification and signature of the RCO (or RSO).

**CURRENT MEMBERS OF THE RADIATION SAFETY COMMITTEE:**

K. Ramaswamy, PhD	Chairman Voting Member
Guoxing Zheng, PhD	Radiation Safety Officer Voting Member
Gnanasekar M., PhD	Radioisotope Control Officer Voting Member
Brian Webb, PhD	Voting Member
Dattatraya G. Bhave. PhD	Voting Member
Prakash J. Pedapati, MD	Voting Member
Chris Berndt	Non-voting Member
Joann Glacken	Non-voting Member
Janet Stull-Snow	Recorder