

NORTH CAROLINA STATE UNIVERSITY
ENVIRONMENTAL HEALTH AND PUBLIC SAFETY
RADIATION SAFETY DIVISION

**INSTRUCTION FOR THE COMPLETION OF FORM RS-1:
“APPLICATION FOR NON-HUMAN USE OF RADIOACTIVE MATERIAL”**

Please return the completed Form RS-1 to:
Radiation Safety Division
Box 8007
Phone: 515-2894

Section 1: Applicant data

Complete the required administrative information for the proposed applicant.

Section 2: Radionuclide and activity data

Please complete one RS-1 for each requested radionuclide. This affords the Radiation Safety Committee the ability to review each radionuclide independently.

Possession Limit: This is the maximum activity of this radionuclide to be possessed at any time. This quantity is the total inventory retained by the investigator excluding radioactive waste held in the laboratory.

Annual Limit: This is the maximum activity of this radionuclide to be ordered during the fiscal year.

Please enter the chemical and physical form of the proposed compound. Gaseous radioactive material (e.g. ^{41}Ar and ^{133}Xe) may require supplemental approval from the North Carolina Radiation Protection Section.

Section 3: Radioactive material use location(s)

Record the building, laboratory number, and phone number where radioactive material will be used or stored.

Section 4: Radioactive material use protocol

Summarize the protocol and/or intended use of radioactive material. Estimate the activity to be used each time a procedure is performed and the frequency of the procedure. Attach additional sheets, if necessary.

Section 5: Storage and handling facilities for radioactive material

Describe shielded storage facilities, special handling apparatus, external dose reduction procedures, radioactive material contamination control procedures, and security for radioactive material.

All storage, radioactive material use areas and waste locations should be indicated on the laboratory map attached to the protocol submission.

Section 6: Radioactive waste disposal

Record the appropriate disposal method on the application for the physical form and half-life of the radioactive waste.

Physical Form	Half-life	Disposal Method
Liquid Waste	all types	Segregate by radionuclide categories listed in RS manual and collect in containers provided by the Environmental Health and Safety. [High water content wastes only.]
Solid Waste	all types	Segregate by radionuclide categories listed in RS manual and dispose in radioactive solid waste containers.
LSC Vials	all types	Segregate by radionuclide categories listed in RS manual and dispose in radioactive waste containers. *Tritium and Carbon-14 can be combined if the activity is less than 0.5 microcurie/gram.
Mixed Waste	all types	Disposal method determined on a case-by-case basis. [Non-aqueous wastes] *Radiation Safety does not promote mixing waste.

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**INSTRUCTION FOR THE COMPLETION OF FORM RS-2:
“APPLICATION FOR NON-HUMAN USE OF RADIOACTIVE MATERIAL”
TRAINING, EXPERIENCE, LABORATORY STAFF, AND EQUIPMENT ADDENDA**

Please return the completed RS-2 to:

*Radiation Safety Division
Box 8007
Phone: 515-2894*

Section 7: Training in the safe use of radiation

All pertinent training in Parts A-F should be completed by the Applicant. Please list the university/college/institutional where the radiation safety training was received. Note the duration of the training and whether it was on-the-job or formal classroom training.

Section 8: Laboratory/clinical experience using radiation sources

List prior experience utilizing the requested radionuclides, activities, and protocols described on the RS-01 application (e.g. ^{32}P , 0.250 mCi, sequencing, 2 years, North Carolina State Univ.).

If an applicant has no direct experience with the protocol or radionuclide, another Principal Investigator may submit a Memorandum of Supervision stating that the proposed protocol will be performed under their direction until the applicant becomes proficient with that technique.

Section 9: Laboratory personnel using radiation sources

List all laboratory staff working with radiation sources. Laboratory personnel working with radiation must complete the RS-3 (Radiation Worker Registration Form) and RS-4 (Previous Exposure History) forms which are available from the Radiation Safety Division.

All persons working with radiation sources must be informed of the specific hazards of their work. They should initial the RS-2 indicating that they have been informed by the applicant of the potential radiation hazards present in the laboratory.

Section 10: Radiation detection instrumentation

List any portable survey instruments used by or available to the laboratory (e.g. Ludlum Model 3, SN: 12345). List any analytical counting equipment used by or available to the laboratory (e.g. Liquid Scintillation Counter, Packard Tri-Carb Model 4430).

Section 11: Certification

Sign and date on the appropriate line indicating that all information on the application is true to the best of your knowledge and that you intend to comply with the authorization conditions and restrictions imposed by the Radiation Safety Committee at North Carolina State University.
