



Environmental Health and Safety

Radiation Protection Services
110 Suffolk Hall
Stony Brook, NY 11794-6200

RADIATION PERMIT APPLICATION

Please complete this application, in its entirety, and remit to the Stony Brook University Radiation Safety Office. In addition to this completed application, please attach you most recent CV and a diagram of all the rooms and areas to be used for radioactive research. Include location of radio-isotope storage, waste storage, areas of use, etc.

Please call or contact the Radiation Safety Officer at 631-632-6410 if you need assistance completing this application

Completed applications may be sent via campus mail to:

Environmental Health & Safety

Attn: RSO

Z=6200

Applications may also be faxed to 631-632-9683 or scanned and e-mailed to ehsafety@stonybrook.edu

SECTION 1: CONTACT INFORMATION

PRINCIPAL INVESTIGATOR	
Name	
Department	
Office Address	
Email	
Office Phone	
Lab Phone	

ALTERNATE CONTACT	
Name	
Department	
Office Address	
Email	
Office Phone	
Lab Phone	

SECTION 2: TYPE OF RADIATION PERMIT (CHECK ALL THAT APPLY)

- Radioactive Material: Research: *Complete sections 1 – 8 & 11*
- Radioactive Material: Animal Use: *Complete section 1 – 8, 9 & 11*
- Radiation Generating Device: Research: *Complete Sections 1, 2, 2A, 10 & 11*

Section 2A: TYPE OF APPLICATION

- Initial Application
- Renew Application Please Enter Permit #:
- Amend Existing Permit (Check all that apply) Please Enter Permit #:
- Add / Remove Isotope
- Change isotope possession limit
- Add / Remove authorized space
- Other

SECTION 3: RADIOISOTOPE USE INFORMATION

Protocol #	Radionuclide	Activity/Experiment (mCi)	Number of Experiments/ Month	Maximum Possession Limit (mCi)	Chemical Form	Physical Form (liquid, solid, gas, sealed source)
1						
2						
3						
4						
5						
6						
7						

SECTION 4: EXPERIMENTAL PROTOCOLS

You may enter your experimental protocol(s) here or **append** them to this application, if additional space is needed. Each radioisotope and use must have an associated protocol. Please indicate any hazardous chemical use and/or any hazardous procedure (e.g. potentially explosive, inhalation hazard, etc.). All protocols must include information regarding the PPE that will be utilized, the maximum activity used per experiment (please include the activity contained in the stock vial, if applicable), segregation and storage of radioactive waste (including secondary containment), the use of fume hoods and shielding (as applicable), the frequency of contamination monitoring, and any other protective measures that will be applied in order to ensure that contamination and radiation exposure are kept **ALARA (As Low As Reasonably Achievable)**.

Check Here if Protocol(s) are attached.

Protocol #1	
Protocol #2	

Protocol #3	
Protocol #4	
Protocol #5	
Protocol #6	
Protocol #7	

SECTION 5: LABORATORY INFORMATION

5A. Laboratory Information (Areas requesting for radioactive authorization)

Building	Room Number	Fume Hood		Bio-Safety Cabinet		Use (e.g, Waste storage, inventory storage, cold room, freezer, main work area, etc.)
		Yes	No	Yes	No	

SECTION 6: SAFETY EQUIPMENT AVAILABLE

Lab Coats	Gloves	Safety Eyewear	Safety Shower / Eyewash	Fume Hood	Absorbant Pads/Paper	Spill Supplies	Remote Handling Tools

SECTION 7: RADIONUCLIDE STORAGE SHEILDING & SECURITY

Please Describe how radionuclides will be stored, shielded (as applicable), and secured.

Type of Material	Storage & Security (e.r.,refrigerator, freezer, cabinet)	Shielding Type (e.g, lucite, acrylic, lead, none)	Containment (e.g., plastic/lead pig, beta box, carboy)
Stock Material			
Samples			
Liquid Waste			
Dry Waste			
Liquid Scinitillation Waste			
Other			

Additional Comments regarding storage, shielding and/or security

Check here if you certify you will abide by the Laboratory Waste Management Guide provided as an attachment to this application.

SECTION 8: RADIATION DETECTION EQUIPMENT
 (Please indicate all radiation detection equipment)

Survey Meters:

Manufacturer	Model	S/N	Detector Model	Detector S/N

Liquid Scintillation Counter (LSC)

Manufacturer	Model	S/N	Building	Room #

Gamma Counter (GC)

Manufacturer	Model	S/N	Building	Room #

SECTION 9: Animal Use Information

Please complete the section below only if your radioisotope work involves the use of animals and attach a copy of the approved IACUC protocol.

Check here if IACUC protocol is attached.

Title of Research Project:

IACUC Protocol Number:

Species	Average Weight of Animal	Number of Animals/Experiment	Number of Experiments / Year

Radioisotope and Chemical Form	Animal Body Weight (grams)	Activity per Animal to be injected (uCi)	Total Number Animals injected per experiment	Total Number of Experiments Expected

Experiment Location (Building & Room#):	
Animal Carcass Storage Location:	
Animal Housing Location:	

Will radioactive material be injected into the live animal? Yes No
 Will the animal be euthanized immediately after injection? Yes No

Please describe the arrangements for animal care and contamination control:

Please describe shielding and safety measures for radiation workers/animal handlers.

Please describe the waste storage and disposal procedures for excretions, bedding, cages and euthanized animals/tissue, as appropriate.

SECTION 10: X-RAY GENERATING EQUIPMENT

Please complete only if using X-Ray Generating Equipment

Please Identify **EACH** x-Ray machine in the inventory below

Manufacturer	Model / Serial No.	Location	Type of Device*	Number of Tubes

Please use the applicable code for *Type of Device*

XDF = X-Ray Diffraction

TEM = Transmission Election Microscope

XRC = Radiographic Cabinet X-Ray

OTH = Other (Please Describe)

XRF = Flouroscopic

SECTION 10A: PROPOSED USE OF X-RAY GENERATING EQUIPMENT

Please describe how you will use the X-Ray generating equipment listed in the inventory above. A general summary is acceptable.

SECTION 10B. SAFE OPERATING PROCEDURES

You may enter the manufacturer’s safe operating procedures here or append them to this application. Each model of radiation-producing machine must have associated safe operating procedures. Additionally, please include information regarding the shielding equipment that will be utilized (e.g., lead vests, shielding barriers) and personnel dosimetry requirements, if applicable.

Check here is safe operating procedures are attached.

SECTION 10C: Operator Information

Please indicate laboratory personnel who will be operating radiation producing devices in your laboratory. All operators must complete X-Ray training and be formally authorized before operating any x-ray generating equipment.

Last Name	First Name	MI	SBU ID#	Role

SECTION 11: CERTIFICATION

By checking this box:

The undersigned certify that the use of all radioactive materials shall be in accordance with pertinent State and Federal regulations, in addition to SBU, Office of Environment, Health and Safety and Radiation Safety Program policies, procedures, permit conditions and within the limits of this application. I certify that I have reviewed and understand the requirements as outlined in the University Radiation Safety Manual. I understand that any changes or amendments to this permit application must be performed in a separate amendment application and approved by the RSO.

Principal Investigator: _____

Date: _____

cc. Radiation Safety File
 Department Chair\
 University Radiation Protection Committee (URPC)

ATTACHMENT #1

Low Level Radioactive Waste Management in the Laboratory
Radiation Protection Services

POLICY

This document describes the differing types of radioactive waste generated on campus and their respective management requirements in the laboratory setting.

PROCEDURE

Waste Type	Description	Containers Available	Isotopes	Wastes prohibited	Management
DAW (Dry, Solid Waste)	Paper, plastic, glass and non-biohazardous absorbed liquids used in radioactive research.	55 gallon, 30 gallon & 5 gallon drums.	Any isotope with a half-life greater than 90 days (H-3, C-14)	Any wastes in liquid form. These include liquid scintillation vials, radioactive liquids, sharps and hazardous chemical wastes.	All long-term isotopes (H-3, C-14, etc.) can be mixed in the same waste container. These wastes are picked up by RPS and shipped off-campus for disposal. Waste will not be picked-up without isotopic contents noted on supplied waste inventory card.
DIS Solid	Paper, plastic, glass and non-biohazardous absorbed liquids used in radioactive research.	Lucite container, 30 gallon and 5 gallon containers.	Any isotope with a half-life less than 90 days. (P-32, S-35, I-125, Cr-51, etc.)	Any wastes in liquid form. These include liquid scintillation vials, radioactive liquids, sharps and hazardous chemical wastes.	Segregate waste containers according to isotope. These wastes are decayed 10 half-lives and disposed in the municipal waste stream. All radioactive symbols must be defaced or removed.
DIS Liquid	Aqueous solutions of radioactive isotopes	1 gallon plastic or 5 gallon plastic containers. (Glass containers prohibited)	Any isotope with a half-life less than 90 days. (P-32, S-35, I-125, Cr-51, etc.)	Any non-aqueous organic solutions. Any solutions with a pH less than 6 or greater than 8.	Segregate waste containers according to isotope. These wastes are decayed 10 half-lives and disposed in the municipal waste stream.
Non-DIS Liquid Wastes	Aqueous solutions of radioactive isotopes.	1 gallon plastic or 5 gallon plastic containers. (Glass containers prohibited)	Any isotope with a half-life greater than 90 days (H-3, C-14)	Any non-aqueous organic solutions. Any solutions with a PH less than 6 or greater than 8.	Long-term isotopes can be mixed in the same waste container. Picked up by RPS.
DIS Mixed Liquid Wastes	Non-aqueous solutions of radioactive isotopes	Any 1 or 5 gallon container compatible with the contents.	Any isotope with a half-life less than 90 days. (P-32, S-35, I-125, Cr-51, etc.)	Any solid materials. (Vials, pipette tips, etc.)	Segregate according to isotope. Short lived isotopes are decayed 10 half-lives. Waste can then be disposed of as chemical waste without consideration of radioactive component.
Non-DIS Mixed Liquid Wastes	Non-aqueous solutions of radioactive isotopes	Any 1 or 5 gallon container chemically compatible with the contents.	Any isotope with a half-life greater than 90 days (H-3, C-14)	Any solid materials. (Vials, pipette tips, paper, glass, syringes)	Isotopes with half-lives greater than 90 days can be mixed in the same container.
Liquid Scintillation Vials	Wastes generated through utilization of liquid scintillation counting	55, 30 or 5 gallon containers supplied by RPS.	Any isotope	Any solid materials. (Vials, pipette tips, paper, glass,	All isotopes can be mixed in the same container.

<p>Animals</p>	<p>equipment. Animal carcasses and/or tissues generated through the injection of radionuclides. Includes bedding and animal waste.</p>	<p>55, 30 or 5 gallon containers supplied by RPS.</p>	<p>For isotopes with a half-life <90 days, the animals may be radiologically decayed for a minimum of 10 half-lives. Decay must be documented and certified.</p> <p>All animal tissue containing 0.05 uCi/gm or less of H-3 and C-14, when averaged over the weight of the entire animal, may be incinerated in an approved pathogenic incinerator. Animal tissue containing more than 0.05 uCi/gm of H-3, C-14, or other isotopes will be collected for disposal in Environmental Health and Safety supplied containers in the DLAR freezer room.</p>	<p>syringes) Only animals, bedding and waste products allowed.</p>	<p>Separate waste containers according to isotope and half-life.</p>
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