1.0 PURPOSE:

To ensure that all those who apply for radiochemical use meet all requirements for safe operation, shielding, monitoring, surveying and storage of radioactive isotopes and waste.

2.0 SCOPE:

This policy applies to all LSUHSC personnel who use radiochemicals.

3.0 RESPONSIBILITIES:

3.1 Radiation Safety Committee shall:

- Review and approve of Appendix A, RS08 - Radiochemical Use Application.

3.2 Radiation Safety Officer shall:

- Ensure that the approved applicant has the required radiation safety materials and training needed before isotope orders are received.
- Provide a three hour basic Radiation Safety Course to all those who use radiochemicals.
- Perform quarterly laboratory inspections.
- Maintain quarterly laboratory inspections results for the current year and the last three fiscal years. Records are subject to review by LA-DEQ.

3.3 Applicants shall:

- Complete Appendix A and submit to the Radiation Safety Committee Chairman.
- Ensure all lab personnel have completed Radiation Safety Course.
- Submit request to Radiation Safety Committee Chairman for renewal at least one month before license expiration date.
4.0 PROCEDURES:

4.1 Procedures:

1) Applicant complete Appendix A and forward to Radiation Safety Committee Chairman.
2) Radiation Committee Chairman grants interim approval or returns Appendix A to applicant if more information is required.
3) Review and approve application at next Radiation Safety Committee meeting.
4) Forward approval to applicant.
5) Renewals are required every three years.
6) An amendment to the license is required if activity amounts change or if radiochemicals are added or removed.
7) Full compliance with all radiological safety policies and procedures is required to maintain the license.

5.0 RECORDKEEPING:

Radiation Safety Officer shall keep all required license documentation indefinitely.

6.0 APPENDICES:

A. Radiochemical Use Application Form
**Applicant's Name:**

**Department:**

**Building:**

**Telephone Number(s):**

**E-mail:**

### 1. List all radiochemicals to be used, the chemical form (e.g. \( ^{3}H \)-thymidine, etc) of each, and the maximum amount (in microCuries \([\Phi Ci]\) or milliCuries \([mCi]\)) which you will have in your laboratory at any one time. Also, estimate the total amount of each isotope to be ordered during your three-year license approval.

<table>
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<tr>
<th>Radiochemical(s)/chemical form (e.g., ( ^{3}H )-thymidine, etc.)</th>
<th>Maximum amount to be on hand at any one time</th>
<th>Estimated amount to be ordered for 3 years</th>
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### 2. List the applicant's qualifications for radiochemical use. (Specify experience [dates] and formal training of the applicant in radiochemical use.)
3. Describe how radiochemicals will be used in experiments with emphasis on waste disposal. Limit to 300 words or less. (Example: After oligonucleotide labeling with $^{32}$P, the unincorporated radiochemical will be collected in a liquid waste vessel for disposal. Solids such as towels, pipettor tips, syringes, needles, plastic bags, etc. which come in contact with $^{32}$P will be bagged, labeled, and disposed of in the appropriate solid waste container for pickup by the Radiation Safety Officer.)

4. List all other individuals under your supervision who will handle radiochemicals.

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<th>Name</th>
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5. Location of Radiochemical Storage (Building & Room #):

6. Method of Chemical Storage:

7. Location of Radiochemicals Use if Different from Storage Room:

8. Safety procedures for individuals working with radiochemicals and safety equipment that will be used (e.g., hood, shield, gloves):

9. Method of monitoring work areas for contamination, (wipe tests, Geiger counter) for each radiochemical:
If Radiochemicals Will Be Used in Animals in This Project Complete A, B & C.

A. Has the appropriate institutional review form been filed with the Institutional Animal Care and Use Committee (IACUC)?

B. List species (e.g., mouse, rat, etc.) of animal and the approximate number that will be disposed of weekly/monthly.

C. List the approximate amount of radiochemical per animal and where animals will be housed during the experiments.

CERTIFICATE

The applicant certifies that he/she and appropriately trained co-investigators, fellows, students, and technicians, etc. will comply with the UNIVERSITY BROAD SCOPE RADIOACTIVE MATERIAL LICENSE requirements and regulations published in the LSUHSC-NO Radiation Safety Manual and that the project will be conducted as described herein and that there will be no use of radioisotopes in humans. Approvals are granted for 3 years.

Name of Applicant:  Signature:  Date:

DEPARTMENTAL AUTHORIZATION

I acknowledge that the department will be responsible for notifying the Radiation Safety Officer regarding disposal of radiochemicals remaining after departure of the above-named faculty member.

Signature of Department Chairman:  Date:

FOR RADIATION SAFETY OFFICE USE ONLY

APPROVED:  □ YES  □ NO  APPROVAL NUMBER:

SIGNATURE:  DATE:

Revised 04/06/09  - 3 -  Appendix A