

Application for Authorization to Use Radioactive Materials

Purpose of this application:	
New or renew application	Amend existing application

Individual responsible for all use of radioactive material under this authorization (the authorized user)	
Name:	Department:
Phone number:	Job title:

Note: Normally only members of the academic or research faculties will be approved as authorized users of radioactive material. This includes individuals holding job titles of professor, associate professor, assistant professor, instructor, research scientist, associate research scientist, assistant research scientist, and research professor. Requests for exception to this policy must be fully justified in writing and will be considered on a case by case basis.

Individual responsible for ensuring radiation safety in the absence of the authorized user	
Name:	Phone number:

Individual(s), other than authorized user, who may submit requests to purchase radioactive materials on behalf of authorized user	
Name 1:	Phone number:
Name 2:	Phone number:
Name 3:	Phone number:

Note: Keeping this list to a minimum helps eliminate duplicate orders.

Approval is requested for the following radioactive material:					
Radionuclide	Chemical and/or physical form	Order/transfer limit (mCi)	Possession limit (mCi)	Max. amount per experiment (mCi)	Max. amount per year (mCi)

Provide information for each individual who will be working with radioactive material				
A complete statement of training must be attached for each individual				
Complete name	Employee/student ID number	Date of birth	Job title	Date completed orientation

Note: Every individual working with radioactive material, including authorized users, must attend the Radiation Safety Orientation Course within three months after starting work and at least once every two years thereafter. New applications will not be approved until this requirement is met.

List each physical place where radioactive material will be used or stored under this authorization.		
<i>Building name</i>	<i>Room number</i>	<i>Room use (i.e. lab, storage only, etc.)</i>

Describe your proposed use of radioactive materials. Be as detailed as possible. Include a description of any special procedures that you and your staff will follow to ensure the safe use of radioactive material under this authorization.

Note: you will be asked to detail your general radiation safety program in section 15 of this application. If you prefer, you may combine the two sections as an overall Standard Operating Procedures section since you will need an SOP on file for your new hires to review prior to the first use of radioisotopes.

Do you intend to transfer radioactive material procured under this authorization to other authorized users within Montana Tech or to individuals outside Montana Tech?		
Yes	No	If Yes, provide information on the anticipated recipient.

Complete this section if iodinations will be performed under this authorization or if any container of a radioiodinated compound possessed under this authorization will contain five millicuries or greater of the isotope.	
Radionuclide(s) involved:	Chemical form:
Max. activity present in any container:	
Location (building and room number) of fume hood where iodinations will be performed or where any container holding five millicuries or more of any radioiodinated substance will be used or stored.	
If you will perform iodinations, provide a brief description of the procedure that you will follow including an estimate of the tagging efficiency you expect to achieve:	
List every individual who will be performing iodinations under this authorization or who will be handling any container with five or more millicuries of any radioactive substance.	

Complete this section if you will work with either 100 millicuries or more of tritium as tritiated water and/or sodium borohydride OR 25 millicuries or more of organically bound tritium.

Chemical form:	Max. activity present in any container:
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Location of fume hood where work involving tritium above the specified levels will be performed.

Describe the procedures you will follow to ensure that any spill of radioactive material is promptly detected and that appropriate steps are taken to prevent the spread of contamination:

List each individual who will be handling any container with tritium at or above the levels listed above.

Complete this section if work will be done under this authorization involving P-32

Max activity present in stock solution:	Max. activity present in container other than stock solution:
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Provide a description of the procedure you will follow for manipulating P-32 so as to minimize exposures from P-32 to the eyes and whole body of any individual:

Provide a description of any shielding that will be provided to minimize exposures from P-32 while in storage, while in use, and as waste material awaiting disposal:

List each individual who will be handling 0.1 millicurie of P-32 at any one time.

If sealed or plated sources will be fabricated under this authorization, describe the procedure you will use and what leak test method you will employ to ensure source integrity.

If you will use commercially available sealed sources, list each source including manufacturer, model number, isotope, activity, calibration date and location of the sealed source.

Note: if the required information is not available at the time of application, provide a general description that can be followed by the specifics as soon as you know them.

If you will use a gas chromatograph containing radioactive material, list each source including manufacturer, model number, isotope, activity, calibration date and location of the sealed source.

Note: if the required information is not available at the time of application, provide a general description that can be followed by the specifics as soon as you know them.

Outline the survey program you and your staff will follow on a day to day basis to ensure that any spill involving radioactive material is promptly identified, that contamination is not spread beyond the immediate area of the spill and that clean-up of the spill is successfully accomplished. Also, outline precautions you and your staff will follow to ensure that external radiation exposures are maintained as low as reasonably achievable. List survey instruments you will use to ensure that the program is successfully implemented including type of instrument, manufacturer, model number, and sensitivity of each instrument used for surveying or monitoring:

List any biohazards involved in the use of radioactive materials and describe the special precautions that will be taken to avoid exposure of persons to these hazards. Describe what, if any, special handling is required for waste generated.

List all toxic chemicals involved in the use of radioactive materials involved in the use of radioactive materials and describe the special precautions that will be taken to avoid exposure of persons to these hazards. Describe what, if any, special handling is required for waste generated.

Signature of applicant _____ Date _____

RSO approval _____ Date _____

This form must be printed after completion, signed, and emailed to mcameron@mtech.edu or brought to EH&S office, CBB 003.