

Environmental, Health & Safety

New Mexico State University

MSC 3578, Box 30001

Las Cruces, NM 88003-8001

**Date Received by EH&S Date Reviewed by RSO**

**APPLICATION FOR USE OF RADIOACTIVE MATERIALS**

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| **Instructions:** Complete all sections as appropriate and submit electronically to the Radiation Safety Officer at [dschoep@nmsu.edu](mailto:dschoep@nmsu.edu) and mail signed copy to the RSO at Environmental Health & Safety, MSC 3578. |

1. **Permittee.**

List the person who will use or supervise the use of the material or device and be responsible for ensuring that rules and regulations that apply to the use of radioactive materials or devices are followed.

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| **Name** | **Department** | **Phone Number** | **E-Mail Address** |
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1. **Permittee Training.**

Fill out the following table of training for person submitting application.

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| --- | --- | --- | --- |
| **Type of Training** | **Where Trained** | **Duration of Training** | **On the Job or Formal** |
| a. Principles and practices of radiation protection |  |  |  |
| b. Radioactivity terminology, measurement, standardization and monitoring techniques |  |  |  |
| c. Basic mathematics and calculations used in the measurement of radioactivity |  |  |  |
| d. Biological effects of radiation exposure |  |  |  |

1. **Permittee Experience.**

Describe the type and amount of experience the applicant has using radioactive material or devices.

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| --- | --- | --- | --- | --- |
| **Isotopes / Device** | **Maximum Amount Used** | **Where Experience was Gained** | **Duration of Experience** | **Type of Use** |
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1. **Unsealed radioisotopes.**

List maximum possession limit desired for each isotope. Maximum amount should include all activity in use, storage and radioactive waste in areas controlled by Permittee. Physical form can be solid, liquid or gas.

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| **Isotope** | **Physical Form** | **Chemical Composition** | **Maximum Amount Needed** |
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1. **Sealed Sources.**

List maximum possession limit desired for each sealed source. Identify each sealed source by manufacturer, model number, NMSU equipment property number and activity of each isotope. Sources form can be capsule, rod, foil, ECD, etc.

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| **Isotope** | **Source Form** | **Manufacturer, Model No., Serial No., NMSU Property No., etc.** | **Activity (mCi)** |
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1. **X-Ray Machines and Other Radiation Producing Devices.**

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| Type of Machine  (choose one from list below) | | Machine Manufacturer | | | Machine  Model | Control  Model No. | Control  Serial No. |
|  | |  | | |  |  |  |
| Number of Tubes | | Tube Serial No.(s) | | | Date Manufactured | Date Installed | Mode of Use  (Fixed or Mobile) |
|  | |  | | |  |  |  |
| Max. Rated Spec.  (kVp) | | Max. Rated Spec.  (mA) | | | Intended Use | | |
| Below 50  50 to 70  Above 70  Other (list)\_\_\_\_ | | Below 50  50 to 300  Above 300  Other (list)\_\_\_\_\_\_\_ | | |  | | |
| Radiation Machine Types (for Box #1) | | | | | | | |
| 1 | Analytical Device | | 10 | Fluoroscopy | | | |
| 2 | Bone Densitometer | | 11 | Mammography | | | |
| 3 | Cabinet X-ray | | 12 | Medical [Radiographic] | | | |
| 4 | Combo [above radiographic/under fluoroscopic] | | 13 | Radiography [Industrial] | | | |
| 5 | Computed Tomography | | 14 | Radiography [Veterinary] | | | |
| 6 | Dental [Intraoral] | | 15 | Veterinary | | | |
| 7 | Dental [Multipurpose] | | 16 | X-ray [Diffraction] | | | |
| 8 | Dental [Panoramic Cephalometric] | | 17 | X-ray [Fluorescence] | | | |
| 9 | Electron Microscope | | 18 | X-ray NDT High Energy Pulse | | | |

1. **Use and Storage Location.**

List all locations where radioactive materials or devices will be stored and used

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| --- | --- | --- |
| **Location Type** | **Building Name** | **Room Number(s)** |
| Storage |  |  |
| Utilization |  |  |

**8. Purpose / Protocols**

Describe the purpose for which the radioactive material, sealed source or x-ray device will be used. Briefly outline the protocol including information such as estimated quantities of radioactivity to be utilized, proposed use of sealed source and/or x-ray techniques to be employed.

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| Use additional sheets as needed: |

1. **Facilities and Equipment**

Briefly describe laboratory facilities, fume hoods, special shielding, handling equipment and storage facilities. Please describe any field use of radioactive materials or equipment. Also describe security controls for work whether it is laboratory or field work.

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| Use additional sheets as needed: |

1. **Radiation Protection.**
2. Describe precautionary methods employed to prevent contamination of personnel and uncontrolled areas.

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| Use additional sheets as needed: |

1. Surveys. List the type and frequency of surveys which will be used to detect possible contamination. How will sealed sources, if any, be leak tested? If you use a portable survey instrument, what is the model and manufacturer? If you share use of a liquid scintillation counter, who has control of it? Where is the survey equipment usually located?

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| Use additional sheets as needed: |

1. Monitoring. Will personnel using the radioactive materialor x-ray devices be monitored? If yes, how? If no, include a clear calculation showing that any exposure to personnel will be below the level which requires monitoring.

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| Use additional sheets as needed: |

1. Training. Describe the extent of training and instruction to be conducted for workers supervised by applicant. This should include Radiation Safety offered by EH&S and any “in-house” training.

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| Use additional sheets as needed: |

1. **Waste Disposal.**

Describe potential waste products or residual radioactive materials that will require disposal. Include such items as quantities, concentrations, physical and chemical forms, miscibility with water, and any hazards associated with the waste other than the radioactivity. Request an addendum to authorize sewage disposal of aqueous wastes which will meet the criteria for disposal via sanitary sewer.

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| Use additional sheets as needed: |

1. **Shipping / Receiving.**

Will you need to ship radioactive materials or sources to another facility? EH&S must be involved in shipping. What manufacturers will you use to procure radioactive materials, sources or x-ray equipment? Describe the procurement method you will use to obtain radioisotopes or equipment. All radioactive materials and sources will be received, checked in and delivered to the lab by EH&S personnel. All shipments must be directed to Environmental Health & Safety, EMF Building, 1635 Standley Dr., Las Cruces, NM 88003-8001.

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| Use additional sheets as needed: |

1. **Additional Information.**

Submit any other information pertaining to the proposed operation which will assure that the program will be conducted in a safe manner and within applicable rules and regulations.

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| Use additional sheets as needed: |

1. **Applicant Certification**

As a NMSU employee or affiliated worker, I attest that the information contained in this application is accurate and complete. I agree to comply with all requirements pertaining to the safe use, handling, storage, transport and disposal of radioactive materials and radiation machines as outlined in the conditions of my permit and policies of the University Radiation Safety Committee as described in the NMSU Radiation Safety Manual.

I will ensure that authorized users working under my permit have received or will receive adequate safety training including appropriate radiation safety training prior to using the radioactive materials or radiation producing devices under my control. I further attest that these individuals have or will be briefed on emergency procedures, safe laboratory work practices including the safe operation of laboratory equipment prior to performing work.

I will select and provide authorized users working under my permit appropriate personal protective equipment necessary for the safe performance of their work. I will also ensure all necessary administrative and engineering controls are in place and in good working order prior to performing, or authorizing work to be performed under this permit.

I will notify the NMSU Radiation Safety Officer (RSO) in the event of any of the following:

* Any accident that results in inoculation, ingestion and inhalation of radioactive materials, significant external contamination, or any incident that resulted in significant personnel exposures or release of radioactive material to the environment.
* Theft or loss of any radioactive materials / sources or radiation producing devices.
* Prior to leaving employment of New Mexico State University so that a close-out decommissioning inspection of my work area will be conducted by the RSO.

I acknowledge that the University Radiation Safety Committee approval is not transferable to any other NMSU faculty or staff member. I also acknowledge that I will not receive radioactive materials / radiation producing devices from another individual or entity or transfer radioactive materials / radiation producing devices to another individual or entity without prior written approval from the RSO.

I understand that I must submit a written modification request to the RSO whenever there are significant changes to approved experiment protocols / procedures described in the application; change in authorized use or storage locations; changes to approved facilities or facility engineering controls, changes in the type or quantity of radioactive material used, and changes in the users authorized to use radioactive materials or radiation producing devices under my permit.

Applicant Signature: Date: \_ \_\_\_\_\_\_ \_\_\_\_\_\_

**University Radiation Safety Committee Member Signature - Approving Permit #:**

RSC Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RSC Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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RSC Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RSC Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

RSO Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_