



Radioactive Materials (RAM) Irradiator Licensing Checklist

Licensee _____ Lic.# _____

- Submit 1 copy only.** Number all pages sequentially that are submitted for review.
- Review the appropriate NUREG-1556 Vol 6, it can be used as guidance to complete this checklist.
 - Submit all Policy and Procedures to the Nevada Radiation Control Program.
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1556/>
- Submit the Application** signed by executive management or a person authorized to sign original documents.
- Financial Assurance, Decommissioning and Emergency Plans:**
 - If financial assurance is required, submit documentation required by NAC 459.1955.
 - If emergency Plan is required per NAC 459.1951, submit the plan required by NAC 459.195.
- Storage and use facility address and diagram**
 - Include the addresses of the business office & use facility if different.
 - Submit a facility Diagram including; Scale, the direction ↑ north, identify the irradiator location, label each area surrounding the irradiator location and describe the use of each area
 - Describe the means of preventing access to unauthorized personnel and a description of the two tangible barriers used in securing the storage location.
 - Commit to Caution Radiation signs as required.
 - Label the alarm, cameras & motion detectors on the diagram.
 - Submit a letter from the land lord stating that they are aware of the storage/use of RAM.
[http://dpbh.nv.gov/uploadedFiles/dpbhnavgov/content/Reg/Radoactive-Mtl/Docs/LandlordAcknowledgementForm\(11-17-15\).pdf](http://dpbh.nv.gov/uploadedFiles/dpbhnavgov/content/Reg/Radoactive-Mtl/Docs/LandlordAcknowledgementForm(11-17-15).pdf)
 - Submit a copy of State or local business license with the storage address.
- Authorized Users**
 - Submit name(s) and include training certificates: current RAD Safety training program.
 - Commit to each employee will complete basic radiation safety annually. A current list of users shall be maintained by the RSO.
- Radiation Safety Officer (RSO), and if applicable, Alternate RSO (ARSO)**
 - Submit training certificates for Radiation Safety, current RSO training.
 - Submit a copy of a RAM license listed as RSO (if available)
 - Submit an organizational chart and a Delegation of Authority form with wet signatures.
http://dpbh.nv.gov/uploadedFiles/dpbhnavgov/content/Reg/Radoactive-Mtl/Docs/RSO_DelegationAuthority.pdf
- Sealed Source RAM Inventory Policy & Procedure**
 - Submit a list of nuclides (including DU) with maximum possession limits and, describe the use of the RAM for each. (e.g. Co-60, Max of 6000 curies, for the irradiation of blood products).
 - If applicable, submit an Emergency Plan, A Decommissioning Plan and Financial Assurance. (NAC 459.1955)
 - Submit the Manufacturer and Model Number for each device.
 - Commit to performing and documenting a physical inventory every 6 months.
 - Commit to Leak Testing as per manufacturer and submit:
 - Include the name of the company supplying kits and analyzing the leak tests.
 - If they are self-analyzed, submit Licensee's procedures for analysis.
 - List of Users to perform leak tests other than the RSO, & submit their training.

- Dosimetry Policy & Procedure**
 - Provide the name of your dosimetry provider (NVLAP approved) and list the exchange frequency.
 - Commit to maintaining control badges for accurate dose assessment.
 - Commit to personnel will wear their personnel dosimeters while working with RAM.
 - If the licensee does not use dosimetry due to 10% rule they need to submit proof that they are below the 10% annual exposure limit.
 - Submit proof / calculations of public dose assessment (<100 millirem (mrem) in a year / 2mrem/ any hr).
- Radiation Survey Instruments Policy & Procedure**
 - Submit the manufacture name, model # and detection ability. (Type of radiation and level of detection)
 - Commit to an annual calibration & the name of the company performing calibration.
- ALARA Program**
 - Commit to an annual review of the radiation safety program.
 - Commit to an annual Radiation Safety Training for operators.
 - Commit to posting the current NRC1 "Notice to Employees" signage
- Operating and Emergency Policy & Procedures**
 - Submit step by step procedures for safe use of RAM.
 - Submit procedures for Inspection and Routine Maintenance, detail the frequency of the checks.
 - Commit to non-routine maintenance performed by manufacturer or those specifically licensed by the NRC or an Agreement State.
 - Submit procedures for workers to use in case of Incident Response (damage, theft or loss) and the reporting requirements.
 - Include the contact information for those who should be notified (cell, office, fax & email)
RSO & Nevada RCP- contact numbers:

Radiation Control Program (8:00AM–5:00PM M-F)	(775) 687-7550
Radiation Control Program 24 hr Emergency Number	(877) 438-7231
Nevada Highway Patrol (24 hrs)	(775) 687-0400
- Disposal Policy & Procedure**
 - The transfer or disposal will be conducted by returning to the manufacturer, transferring to another specific licensee or a licensed waste broker specifically authorized to possess the gauge or device.
 - Commitment to maintain records of receipt, transfer, and disposal of all sealed sources and devices received and possessed under the license
 - Commitment that license termination will be conducted in compliance with Nevada Administrative Code (NAC) 459.200.

Materials Control & Security Checklist

(Formerly Increased Controls)

- Review the 10 CFR 37 and NUREG 2155** as guidance to complete this checklist
 - Submit all Policy and Procedures to the Nevada Radiation Control Program
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr2155/>
- Personnel Access Authorization: 10 CFR 37 Subpart B**
 - Submit the name and title of the Reviewing Official (RO)
 - Develop, implement, maintain **AND SUBMIT** an Access Authorization Program per 10 CFR 37.23
 - Commit to reviewing this program every 12 months, and maintaining these records for three years
 - Commit to maintain a list of approved individuals with unescorted access &/or access to Safeguards Information per 10 CFR 37.23
 - Commit to maintaining these unescorted access lists for three years after being superseded or replaced

Physical Protection Requirements during use: Subpart C

- Develop, implement, maintain **AND SUBMIT** a security program per 10 CFR 37.41
 - Commit to reviewing the following every 12 months 10 CFR 37.55
 - Current security plan
 - Initial & refresher training on the security program, and
 - Implementation procedures
 - Commit to developing and maintaining written procedures that document how the security plan will be met
 - Commit to performing initial and refresher security training every 12 months
 - Commit to maintaining the following for three years after being superseded or replaced
 - Current & previous security plan
 - Initial & refresher training on the security program, and
 - Implementation procedures
 - Commit to LLEA coordination, updating every 12 months & maintain for 3 years per 10 CFR 37.45
 - Commit to developing, implementing & maintaining security zones per 10 CFR 37.47
 - Commit to monitoring and detecting all entries into the security zones per 10 CFR 37.49
 - Commit to a maintenance and testing program per 10 CFR 37.51
 - Commit to requirements for mobile devices per 10 CFR 37.53 (if applicable)
 - Commit to Event Reporting per 10 CFR 37.57

Physical Protection in Transit: Subpart D

- Commit to using the NRC License Verification System (LVS) or contacting the licensing agency prior to shipping Category 1 or 2 quantities to any other licensee per 10 CFR 37.71 to 37.79
- Commit to maintaining the verifications for three years
- Commit to implementing the Reporting of Events to LLEA, RCP, and the NRC per 10 CFR 37.81

Comments: _____

CERTIFICATION

The Applicant understands that all commitments that are marked above are binding and considered part of the license application; if not applicable, DO NOT mark. All applicable items that require submission must accompany the application, license fee and this checklist.

CERTIFYING OFFICER —PRINTED NAME

TITLE

SIGNATURE

DATE