A. **Purpose**

Special attention is necessary to maintain accountability of sealed sources as well as ensure their safe use.

B. **Applicability/scope**

This applies to the Morningside, Nevis, LDEO, Barnard College and Manhattanville campuses and Medical Center facilities including Columbia University Medical Center, NewYork Presbyterian Hospital and Allen Hospital and New York State Psychiatric Institute.

C. **Definitions**

- MBq: megabecquerels = $1 \times 10^6$ decays per second
- RCNY: Rules of the City of New York, Article 175
- uCi: microcurie = $1 \times 10^{-6}$ curies or $3.7 \times 10^4$ decays per second

D. **Policies**

1. When working with sealed sources use **TIME**, **DISTANCE** and **SHIELDING** to keep your exposure as low as reasonably achievable.
   - a. Minimize your **TIME** handling the sources
   - b. Handle the sources at the greatest **DISTANCE** possible; use long-handled tongs if possible
   - c. Use **SHIELDING** as appropriate

2. Sources must be secured at all times when not in use. They should be maintained in locked storage in areas where access is restricted. Sources that are not in a controlled or restricted area and that are not in storage will be under constant surveillance, or secured to prevent unauthorized removal.

3. Sources must not be stored with either food or beverages.

4. A physical inventory of all sources, with the exception of gamma stereotactic radiosurgery sources, will be conducted at intervals not to exceed three months. Radiation Safety personnel will conduct and document these tests unless other arrangements are made with the Radiation Safety Officer.

5. All sealed sources must be leak tested before first use unless the licensee has a certificate from the supplier indicating that the source was tested within 6 months before transfer to the licensee. Leak tests will be performed on all sources at intervals not to exceed 6 months or at other intervals approved by the Commission or an Agreement State in the Sealed
Source and Device Registry. Radiation Safety personnel will conduct and document these tests unless other arrangements are made with the Radiation Safety Officer.

6. Leak tests need not be performed on
   a. Sources containing only radioactive material with a half-life of less than 30 days;
   b. Sources containing only byproduct material as a gas;
   c. Sources containing 3.7 MBq (100 uCi) or less of beta or gamma-emitting material or 0.37 MBq (10 uCi) or less of alpha-emitting material;
   d. Seeds of iridium-192 encased in nylon ribbon; and
   e. Sources stored and not being used. However, the licensee shall test each such source for leakage before any use or transfer unless it has been leak tested within 6 months before the date of use or transfer.

E. Responsibilities

Radiation Safety: conduct inventory and leak tests; maintain accountability records

Users/owners of sealed sources: notify Radiation Safety when sources are acquired; maintain sources in safe and secure location when not in use; maintain constant surveillance over sources when not in safe and secure storage.

F. Emergency contact

Radiation Safety: CUMC: 212-305-0303; Morningside, Barnard College, Nevis, LDEO: 212-854-8749

G. Medical Surveillance

N/A

H. Recordkeeping

1. Records of testing for leakage and contamination should be kept for 5 years
   • The records should include:
     o Manufacturer and model number
     o Serial number if one has been assigned
     o Identity of each source by radionuclide and its estimated activity
     o Storage and/or use location of each source
     o Results of the test in units of Becquerel or microcuries
     o Date of the test
     o Name of individual who performed the test

2. Records of quarterly physical inventory should be kept for 5 years
   • The records should include:
     o Manufacturer and model number
     o Serial number if one has been assigned
     o Identity of each source by radionuclide and its estimated activity
     o Storage and/or use location of each source
I. Appendices
N/A

J. Forms
N/A

K. References

- RCNY §§175.03(i)(1)
- RCNY §§175.03(i)(2)
- RCNY §§175.03(i)(3)
- RCNY §§175.103(c)(6)(ii)(A)
- RCNY §§175.103(c)(6)(ii)(A)
- RCNY §§175.03(k)(17)(i)
- RCNY §§175.03(k)(17)(ii)

L. Acknowledgements (optional)
N/A