

Radiation Safety Reference Material

Policy: 7.01
Version: 1.0

Created: 08/29/2014
Revised:

A. Purpose

This policy is adopted to catalogue reference and regulation reference materials for use in radiation safety. It details all regulations governing licensing and use of radioactive materials and ionizing radiation used at Columbia University Medical Center. It also compiles some guidance documents for assistance in compliance.

B. Applicability/scope

This policy applies to all personnel involved in Radiation Safety or Research Safety at EH&S at Columbia University.

C. Definitions

- CUMC – Columbia University Medical Center
- LDEO – Lamont Doherty Earth Observatory
- NCRP – National Council on Radiation Protection and Measurements
- NRC – United States Nuclear Regulatory Commission
- NUREG – Regulatory guides published by NRC
- NYC – New York City
- NYS – New York State
- RARAF – Radiological Research Accelerator Facility

D. Policy

Below is a list of regulations governing the medical use of radioactive materials and ionizing radiation from federal, state, city and Columbia University Radiation Safety program. After the list of regulatory codes there are some guidance documents listed for use in compliance to the regulations.

1. NRC Title 10, Code of Federal Regulations
 - a. <http://www.nrc.gov/reading-rm/doc-collections/cfr/>
 - b. Part 2 – Agency Rules of Practice and Procedure
 - c. Part 19 – Notices, Instructions and Reports to Workers: Inspection and Investigations
 - d. Part 20 – Standards for Protection Against Radiation
 - e. Part 21 – Reporting of Defects and Noncompliance
 - f. Part 30 – Rules of General Applicability to Domestic Licensing of Byproduct Material
 - g. Part 32 – Specific Domestic Licenses to Manufacture or Transfer Certain Items Containing Byproduct Material
 - h. Part 33 – Specific Domestic Licenses of Broad Scope for Byproduct Material
 - i. Part 35 – Medical Use of Byproduct Material
 - j. Part 40 – Domestic Licensing of Source Material
 - k. Part 70 – Domestic Licensing of Special Nuclear Material
 - l. Part 71 – Packaging and Transportation of Radioactive Material
 - m. Part 150 - Exemptions and Continued Regulatory Authority in Agreement States and in Offshore Waters Under Section 274

- n. Part 170 – Fees for Facilities, Materials, Import and Export Licenses, and Other Regulatory Services Under the Atomic Energy Act of 1954, as Amended
- o. Part 171 – Annual Fees for Reactor Licenses and Fuel Cycle Licenses and Materials Licenses, Including Holders of Certificates of Compliance, Registrations, and Quality Assurance Program Approvals and Government Agencies Licensed by the NRC
2. Transportation Title 49, Code of Federal Regulations
 - a. http://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title49/49tab_02.tpl
 - b. Part 171 – General Information, Regulations and Definitions
 - c. Part 172 – Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, Training Requirements and Security Plans
 - d. Part 173 – Shippers – General Requirements for Shipments and Packagings
 - e. Part 174 – Carriage by Rail
 - f. Part 175 – Carriage by Aircraft
 - g. Part 176 – Carriage by Vessel
 - h. Part 177 – Carriage by Public Highway
 - i. Part 178 – Specifications for Packagings
3. NCRP Reports 7-174
4. NYS Department of Labor Safety and Health Code Rules Part 38 – Ionizing Radiation Protection
<http://labor.ny.gov/workerprotection/safetyhealth/sh38.shtm>
5. NYS Department of Health Title 10 (Health) Part 16 – Ionizing Radiation
https://www.health.ny.gov/environmental/radiological/radon/radioactive_material_licensing/docs/part16.pdf
6. NYC Health Code Article 175 – Radiation Control
<http://www.nyc.gov/html/doh/downloads/pdf/about/healthcode/health-code-article175.pdf>
7. Radioactive materials licenses issued by NYC or NYS Departments of Health, NYS Department of Environmental Conservation, or US NRC. These documents are available for review during normal business hours at the following locations:
 - a. Columbia University Medical Center (CUMC) Radiation Safety Office – 601 W. 168th St, NYC, 212-305-0303
 - b. Columbia University Radiation Safety Office (Morningside) – 419 W. 119th St, NYC, 212-854-8749
 - c. Lamont-Doherty Earth Observatory (LDEO) Safety Office – 101 Administration, 845-365-8822.
 - d. Nevis Laboratories – Radiological Research Accelerator Facility (RARAF) – 136 So. Broadway, Irvington, NY
8. NUREG 1556 Vol 9, Revision 2 – Program-Specific Guidance About Medical Use License
9. Radioactive Materials Licensing Guides: List of radiation guides from the NYS Department of Health.
https://www.health.ny.gov/environmental/radiological/radon/radioactive_material_licensing/
10. Columbia University Radiation Safety website – <http://ehs.columbia.edu/rs.html>
11. Columbia Radiation Safety Manual – <http://ehs.columbia.edu/RadiationSafetyManual.pdf>

E. Emergency contact

Radiation Safety Reference MaterialPolicy: 7.01
Version: 1.0Created: 08/29/2014
Revised:

1. Radiation Safety (CUMC): 212-305-0303
2. Radiation Safety (Morningside, Barnard College, Manhattanville, LDEO, Nevis) – 212-854-8749.

F. Medical Surveillance**G. Recordkeeping****H. Appendices****I. Forms****J. References**

1. Article 175 of the Code of the City of New York
2. NUREG 1556 Vol 9, Revision 2
3. NRC Title 10, Code of Federal Regulations
4. Transportation Title 49, Code of Federal Regulations
5. https://www.health.ny.gov/environmental/radiological/radon/radioactive_material_licensing/
6. NYS Department of Health Title 10 (Health) Part 16 – Ionizing Radiation