**Section 335.9140 Training for Use of Remote Afterloader Units, Teletherapy** **Units and Gamma Stereotactic Radiosurgery Units**

Except as provided in Section 335.9160, the licensee shall require the authorized user of a sealed source under the provisions and requirements of Subpart I to be a physician who:

a) Is certified by a medical specialty board whose certification process has been recognized by the Agency, the U.S. Nuclear Regulatory Commission or an Agreement State and who meets the requirements in subsection (d). To have its certification process recognized, a specialty board shall require all candidates for certification to:

1) Successfully complete a minimum of 3 years of residency training in a radiation therapy program approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education, the Royal College of Physicians and Surgeons of Canada, or the Council on Postdoctoral Training of the American Osteopathic Association; and

2) Pass an examination administered by diplomates of the specialty board that evaluates knowledge and competence in radiation safety, radionuclide handling, treatment planning, quality assurance and clinical use of stereotactic radiosurgery, remote afterloaders and external beam therapy; or

AGENCY NOTE: Specialty boards whose certification processes have been recognized by the Agency, the U.S. Nuclear Regulatory Commission or an Agreement State will be posted on the NRC's website.

b) Has:

1) Completed a structured educational program in basic radionuclide techniques applicable to the use of a sealed source in a therapeutic medical unit that includes:

A) 200 hours of classroom and laboratory training in the following areas:

i) Radiation physics and instrumentation;

ii) Radiation protection;

iii) Mathematics pertaining to the use and measurement of radioactivity;

iv) Radiation biology; and

B) 500 hours of work experience, under the supervision of an authorized user who meets the requirements in this Section, Section 335.9160, or equivalent U.S. Nuclear Regulatory Commission or Agreement State requirements, at a medical institution that is authorized to use radioactive materials under Subpart I. The work experience shall include:

i) Reviewing full calibration measurements and periodic spot-checks;

ii) Preparing treatment plans and calculating treatment doses and times;

iii) Using administrative controls to prevent a medical event involving the use of radioactive material;

iv) Implementing emergency procedures to be followed in the event of the abnormal operation of the medical unit or console;

v) Checking and using survey instruments;

vi) Selecting the proper dose and how it is to be administered; and

2) Completed 3 years of supervised clinical experience in radiation therapy under an authorized user who meets the requirements of this Section or Section 335.9160 or equivalent U.S. Nuclear Regulatory Commission or Agreement State or requirements. The experience shall be obtained as part of a formal training program approved by the Residency Review Committee for Radiation Oncology of the Accreditation Council for Graduate Medical Education, the Royal College of Physicians and Surgeons of Canada, or the Council on Postdoctoral Training of the American Osteopathic Association. This experience may be obtained concurrently with the supervised work experience required by subsection (b)(1)(B); and

3) Obtained written attestation that the individual has satisfactorily completed the requirements in subsections (b)(1), (b)(2), and (c) and is able to independently fulfill the radiation safety-related duties as an authorized user for the type of therapeutic medical unit for which the individual is requesting authorized user status. The attestation shall be obtained from either:

A) A preceptor authorized user who meets the requirements in this Section, Section 335.9160, or equivalent U.S. Nuclear Regulatory Commission or Agreement State requirements for each type of therapeutic medical unit for which the individual is requesting authorized user status; or

B) A residency program director who affirms in writing that the attestation represents the consensus of the residency program faculty where at least one faculty member is an authorized user who meets the requirements in this Section, Section 335.9160, or equivalent U.S. Nuclear Regulatory Commission or Agreement State requirements for the types of therapeutic medical unit for which the individual is requesting authorized user status and concurs with the attestation provided by the residency program director. The residency training program shall be approved by the Residency Review Committee of the Accreditation Council for Graduate Medical Education, the Royal College of Physicians and Surgeons of Canada, or the Council on Postdoctoral Training of the American Osteopathic Association and shall include training and experience specified in subsections (b)(1) and (b)(2).

c) Has received training in device operation, safety procedures and clinical use for the types of therapeutic medical unit for which authorization is sought. This training requirement may be met by satisfactory completion of a training program provided by the vendor for new users or by receiving training supervised by an authorized user or authorized medical physicist, as appropriate, who is authorized for the types of use for which the individual is seeking authorization.

AGENCY NOTE: The term "type of therapeutic medical unit" refers to a type of use identified in this Section. It applies to this Section only. Training for therapeutic medical units is not manufacturer-specific. Training for one brand of therapeutic medical unit is acceptable for another brand of the same type of unit.

(Source: Amended at 46 Ill. Reg. 966, effective December 21, 2021)