

American Osteopathic  
Board of Radiology



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U.S. Nuclear Regulatory Commission  
ATTN: Mr. Thomas Essig, Chief, Materials Safety  
And Inspection Branch (MS T8F3)  
11545 Rockville Pike  
Rockville, MD 20852

Dear Mr. Essig

The American Osteopathic Board of Radiology (AOBR) is writing you for the purpose of ensuring its recognition by the Nuclear Regulatory Commission (NRC) of its certification processes under the board recognition requirements in 10 CFR Part 35, Subparts B and D through H. Our request relates specifically to the following sections:

**Subpart B--General Administrative Requirements**

§ 35.50 Training for Radiation Safety Officer.

**Subpart D--Unsealed Byproduct Material--Written Directive Not Required**

§ 35.100 Use of unsealed byproduct material for uptake, dilution, and excretion studies for which a written directive is not required. (Diag Rad & Rad)

§ 35.190 Training for uptake, dilution, and excretion studies. (Diag Rad & Rad)

§ 35.200 Use of unsealed byproduct material for imaging and localization studies for which a written directive is not required. (Diag Rad & Rad)

§ 35.290 Training for imaging and localization studies. (Diag Rad & Rad)

**Subpart E--Unsealed Byproduct Material--Written Directive Required**

§ 35.390 Training for use of unsealed byproduct material for which a written directive is required. (Diag Rad & Rad)

§ 35.392 Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries). (Diag Rad & Rad)

§ 35.394 Training for the oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries). (Diag Rad & Rad)

§ 35.396 Training for the parenteral administration of unsealed byproduct material requiring a written directive. (Diag Rad & Rad)

**Subpart F--Manual Brachytherapy**

§ 35.490 Training for use of manual brachytherapy sources. (Rad, RO, & Therapeutic Rad)

§ 35.491 Training for ophthalmic use of strontium-90. (Rad, RO, & Therapeutic Rad)

**Subpart G--Sealed Sources for Diagnosis**

§ 35.590 Training for use of sealed sources for diagnosis. (Rad, Diag Rad, RO, & Therapeutic Rad)

**Subpart H--Photon Remitting Remote Afterloader Units, Teletherapy Units, and Gamma Stereotactic Radiosurgery Units**

§ 35.690 Training for use of remote afterloader units, teletherapy units, and gamma stereotactic radiosurgery units. (Rad, RO, & Therapeutic Rad)

The AOBR, founded in 1939 as the first osteopathic board, is one of eighteen approved specialty boards of the American Osteopathic Association. The American Osteopathic Association, through its certifying body, the Bureau of Osteopathic Specialists, is the primary source of certification for osteopathic physicians. The AOBR offers primary certification in two fields, Diagnostic Radiology and Radiation Oncology, as well as Certification of Added Qualifications in the subspecialties of Body Imaging, Neuroradiology, Nuclear Radiology, Pediatric Radiology, and Vascular and Interventional Radiology.

Other categories in which the AOBR has certified physicians but are no longer offered include Radiology, Roentgenology, Diagnostic Roentgenology, and Radiation Therapy. The titles of these certification fields have changed to reflect current practice and training.

Diplomates of the AOBR are required to attend 120 CME credit hours every 3 years of which 50 CME credit hours must be in their specialty to maintain certification. This ensures that all diplomates are up-to-date in the practice of Radiology or Radiation Oncology including current radiation safety regulations and procedures.

Recertification was first offered by the AOBR on a voluntary basis in 1992. The Board began issuing ten year time-limited certificates in 2002.

### QUALIFICATIONS OF APPLICANTS

Admissibility to the written examinations is determined by the Board. An applicant for admission to the certification examination in Diagnostic Radiology or Radiation Oncology shall be required to present the following documentation to the American Osteopathic Board of Radiology verifying that the applicant has met the following standards:

- The applicant must be a graduate of an AOA accredited college of osteopathic medicine.
- The applicant must be licensed to practice in the state or territory where his/her practice is conducted.
- The applicant must be able to show evidence of conformity to the standards set forth in the Code of Ethics of the American Osteopathic Association.
- The applicant must have been a member in good standing of the American Osteopathic Association or the Canadian Osteopathic Association for the two (2) years immediately prior to the date of certification.
- The applicant must have satisfactorily completed a one-year AOA-approved internship.
- A period of four (4) or more years of AOA-approved training in Diagnostic Radiology is required, after the required one (1) year of internship for candidates commencing training on July 1, 1989, and thereafter.
- A period of three (3) or more years of AOA-approved training in Diagnostic Radiology is required, after the required one (1) year of internship for candidates commencing training prior to July 1, 1989.
- A period of four (4) or more years of AOA-approved training in Radiation Oncology shall be required, after the required one (1) year of internship for candidates commencing training on July 1, 1999, and thereafter.
- A period of three (3) or more years of AOA-approved training in Radiation Oncology shall be required, after the required one (1) year of internship for candidates commencing training prior to July 1, 1999.
- The applicant must have approval from the American Osteopathic College of Radiology and the American Osteopathic Association of all completed training.

Following satisfactory compliance with the prescribed requirements for examination, the applicant is required to pass appropriate examinations planned to evaluate an understanding of the scientific basis of the problems involved in the appropriate specialty, familiarity with the current advances in radiology, possession of sound judgment and of a high degree of skill in the diagnostic and therapeutic procedures involved in the practice of the appropriate specialties.

- 1) Oral film interpretation and written examinations shall be conducted and required in the case of each Diagnostic Radiology applicant.
- 2) Oral film interpretation and written examinations shall be conducted and required in the case of each Radiation Oncology applicant.
- 3) The clinical part of the examination shall be performed following the successful completion of the written examination. Clinical cases utilizing all pertinent modalities performed in the appropriate specialty will be reviewed with the candidate by members of the Board.

### **ELIGIBILITY OF CANDIDATES – Diagnostic Radiology**

Admissibility to the written examinations is determined by the Board. Candidates will be considered for the Physics portion of the written examinations only when they are in their second year of training. Successful candidates will be eligible to sit for the Diagnostic Imaging written examination during their third year of training. If the candidate has not already passed the Physics examination, he/she may take both the written Physics and Diagnostic Imaging examinations together during their third or fourth year of training or at any examination following training.

Candidates who have passed the written examinations are eligible to take the oral examinations during their fourth year of training or at any examination following training. Verification of successful completion of the previous years of training is required prior to admitting any candidate to an examination session.

### **ELIGIBILITY OF CANDIDATES – Radiation Oncology**

Admissibility to the written examinations is determined by the Board. Candidates will be considered for the written examination during their final year of training or any examination following training. Candidates who have passed the written examinations are eligible to take the oral examinations during their fourth year of training or at any examination following training. Verification of successful completion of the previous years of training is required prior to admitting any candidate to an examination session.

### **EXAMINATION CONTENT – Diagnostic Radiology**

The AOCR Basic Standards for Residency Training in Diagnostic Radiology requires residents to complete documented training in radiologic physics, radiation biology, and radiation protection to meet current Nuclear Regulatory Commission (NRC) licensure requirements. The AOCR Basic Standards requires all trainees to meet the training requirements as stated in the NRC 10 CFR, Part 35. To avoid contradiction of the final rule, the AOCR did not quote specific training requirements within their standards and instead referred to the NRC regulations as the specific requirement. The American Osteopathic Board of Radiology examines in the following content areas:

#### **Physics of Medical Imaging, Biological Effects and Safety**

Radiological Physics (radiation production and interaction with matter)	Radiological Imaging (radiography, fluoroscopy, CT, and mammography)
Radiation Biology (health effects)	Ultrasound
Radiation Safety and Protection	MRI
	Nuclear Medicine

Approximately 20% of the examination is devoted to radiation protection each year.

#### **Diagnostic Imaging**

Neuroradiology	Gastrointestinal Tract	Pediatric Radiology
Cardiovascular/Interventional	Ultrasound	Nuclear Medicine
Chest	Breast Radiology	
Genitourinary Tract	Musculoskeletal	

The content of the oral examination consists of film interpretation in each of the following subsections:

Neuroradiology	Gastrointestinal Tract	Pediatric Radiology
Cardiovascular/Interventional	Ultrasound	Nuclear Medicine
Chest	Breast Radiology	
Genitourinary Tract	Musculoskeletal	

## EXAMINATION CONTENT - Radiation Oncology

The AOCR Basic Standards for Residency Training in Radiation Oncology requires residents to complete documented training in radiologic physics, radiation biology, radiation protection and basic radioisotope handling techniques under the direction of a qualified radiation physicist to meet current Nuclear Regulatory Commission licensure requirements. The AOCR Basic Standards requires all trainees to meet the training requirements as stated in the NRC 10 CFR, Part 35. To avoid contradiction of the final rule, the AOCR did not quote specific training requirements within their standards and instead referred to the NRC regulations as the specific requirement.

The content of the written examinations in Radiation Oncology includes the following:

1. Radiobiology
2. Physics
3. Clinical
  - A. Lung
  - B. Head and Neck
  - C. CNS Malignancies
  - D. Gastrointestinal Malignancies
  - E. Genitourinary Malignancies
  - F. Gynecologic Malignancies
  - G. Breast
  - H. Skin
  - I. Sarcoma Malignancies
  - J. Pediatrics
  - K. Lymphoma/Leukemia Malignancies

The content of the oral film interpretation examinations in Radiation Oncology includes the following:

1. Lung; head/neck; CNS malignancies
2. Gastrointestinal malignancies
3. Genitourinary malignancies
4. Gynecologic malignancies
5. Breast; skin; sarcoma malignancies
6. Pediatrics; lymphoma/leukemia malignancies

## REQUIREMENTS FOR CERTIFICATION

Candidates accepted for examination may be in training during the examination process; however, no candidate is recommended for certification until the AOBR receives verification that the American Osteopathic College of Radiology has approved each year of training including "Program Complete" approval status.

## VALIDITY

On periodic bases, the Bureau of Osteopathic Specialists evaluates each specialty board's examinations. At the BOS meeting on January 11, 2004, the AOA Bureau of Osteopathic Specialists reported that following the review and evaluation of the AOBR exams, the AOBR was found in compliance with the AOA certification exam standards and was awarded a 5 year approval (the maximum number of years allowed).

## CERTIFICATES

The American Osteopathic Board of Radiology is authorized by the American Osteopathic Association to examine candidates for certification and make recommendations to the Bureau of Osteopathic Specialists. The Bureau of Osteopathic Specialists functions under the auspices of the American Osteopathic Association Board of Trustees from which it receives its purposes and authority. The Bureau of Osteopathic Specialists is the official certifying body of the osteopathic profession.

Upon BOS approval, a certificate is issued by the American Osteopathic Board of Radiology to each candidate who has successfully completed an AOA-approved period of training and study and has passed a written and oral examination demonstrating an adequate level of knowledge and ability in Diagnostic Radiology or Radiation Oncology and who has received the approval of the Executive Committee of the Bureau of Osteopathic Specialists of the AOA. A certificate will not be issued until verification has been received from the program director and chairman that all requirements have been fulfilled in the training program.

Effective January 1, 2002, all certificates issued by the AOBR shall be valid for a period not to exceed 10 years from date of issue, or in conformity with the applicable rules and regulations in effect on the date such certificate is issued or as may be established by the Board of Trustees of the American Osteopathic Association.

Prior to January 1, 2002, certificates issued by this Board are lifetime certificates.

Certificates of recertification are issued to candidates who successfully complete the recertification process and who are approved by the Bureau. Recertification certificates issued by the AOBR are valid for a period not to exceed 10 years from date of issue.

#### WEBSITE

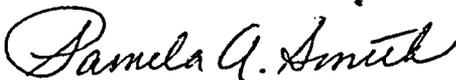
The American Osteopathic Board of Radiology provides certification information to osteopathic residents and physicians through the website of the American Osteopathic College of Radiology. This may be viewed at [www.aocr.org/certification](http://www.aocr.org/certification).

#### COMMITMENT

This letter of application has been prepared by Pamela Smith, Executive Director. The Chair of the Board of the American Osteopathic Board of Radiology and the Nuclear Medicine Section Chair have reviewed this letter and, together with the Executive Director, accepts responsibility for the completeness and accuracy of the information provided. The Executive Director has been authorized by the Board to prepare and submit the application on behalf of the American Osteopathic Board of Radiology.

Thank you for the opportunity to apply for continuing NRC recognition. Please do not hesitate to contact me if further information is required.

Sincerely



Pamela A. Smith  
Executive Director

cc Kenneth P. Tarr, DO, Chair  
Mark S. Finkelstein, DO, Vice Chair  
Roy S. Teng, DO, Secretary-Treasurer  
Paul J. Chase, DO, Nuclear Medicine Section Chair