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

From: Stephen R. Thomas, PhD
Associate Executive Director for Radiologic Physics
American Board of Radiology

Date: October 14 2005

Re: Request for Recognized Status for the American Board of Radiology (ABR) in Radiologic Physics

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Dear Mr. Essig:

I am writing in response to the email from Cynthia Flannery, CHP dated September 9, 2005 where further input was needed from the ABR in connection with the letter to you dated August 10, 2005 and the US Nuclear Regulatory Commission's recognition of ABR certification processes. The issues that required attention are listed and explained below.

1. Please specify the graduate degrees, other than medical physics, that ABR accepts for candidates to be eligible for admission to the ABR certification process (see 10 CFR 35.50(a)(2)(I) and 10 CFR 35.51(a)(1)).

   RP Response
   The ABR requires candidates for the certification process in Radiologic Physics to "hold a master's or doctoral degree from an approved institution (accredited by a regional accrediting body) in medical physics, radiologic physics, health physics, physics, or other relevant physical science or engineering disciplines " [ABR website stated policy]. As amplification, the degrees might be in medical physics, radiological physics, health physics, physics, engineering (nuclear, biomedical), computational science, or physical chemistry. These degree requirements are in compliance with and encompassed by the specifications listed in 10 CFR 35.50(a)(2)(i) and 10 CFR 35.51(a)(1), namely, "Hold a master's or doctor's degree in physics, medical physics, other physical science, engineering, or applied mathematics from an accredited college or university."

2. In accordance with 10 CFR 35.50(a)(2)(I) and 10 CFR 35.51(a)(1), ABR needs to confirm whether it requires candidates to have degrees from an accredited college or university.

   RP Response
   The ABR confirms that candidates for the certification process in Radiologic Physics must have a degree from an accredited college or university (as stated explicitly on the ABR website – see Question 1 Response above). This requirement is in compliance with the specifications listed in 10 CFR 35.50(a)(2)(i) and 10 CFR 35.51(a)(1), namely, "Hold a master's or doctor's degree …. from an accredited college or university."

3. ABR needs to define, for all three sub-specialties of radiologic physics, the required amount of time candidates seeking certification must spend for the 3 years of experience in the discipline for which certification is required (e.g., full-time) (see 10 CFR 35.50(a)(2)(ii) and 10 CFR 35.51(a)(2)).

RP Response

The ABR requires candidates for certification in all three sub-specialties of Radiologic Physics (Diagnostic Radiologic Physics, Therapeutic Radiologic Physics, Medical Nuclear Physics) to have documentation of 3 years of full time equivalent experience in the discipline for which they are seeking certification. Of this, no more than 12 months may be accredited for graduate studies and these months must represent an active clinical component. This exceeds the requirements in 10 CFR 35.50(a)(2)(ii) and 10 CFR 35.51(a)(2) that specify "…2 years of full-time practical training and/or supervised experience in medical physics".

4. ABR needs to confirm, for the Medical Nuclear Physics and Diagnostic Radiologic Physics sub-specialties, that candidates seeking certification must obtain their practical training and/or supervised experience in medical physics under the supervision/direction of an individual who meets the requirements in 10 CFR 35.50(a)(2)(ii)(A) or 35.50(a)(2)(ii)(B).

RP Response

The ABR confirms that candidates for the certification process in Medical Nuclear Physics and Diagnostic Radiologic Physics sub-specialties must obtain their practical training and supervised experience in medical physics under the supervision/direction of an individual who meets the requirements in 10 CFR 35.50(a)(2)(ii)(A), namely, a medical physicist who holds ABR certification in Radiologic Physics. [It is noted, at this time, that there are no specialty boards recognized by the Commission or an Agreement State as stipulated in the above quoted sections of 10 CFR 35. It is expected that the ABR will gain recognized status and thus accommodate the requirement.]

5. ABR needs to confirm, for the Therapeutic Radiologic-Physics sub-specialty, that candidates seeking certification must obtain their practical training and/or supervised experience in medical physics under the supervision/direction of an individual who meets the requirements in 10 CFR 35.51(a)(2)(I) or 35.51(a)(2)(ii).

RP Response

The ABR confirms that candidates for the certification process in the Therapeutic Radiologic Physics sub-specialty must obtain their practical training and supervised experience in medical physics under the supervision/direction of an individual who meets the requirements in 10 CFR 35.51(a)(2)(I), namely, a medical physicist who holds ABR certification in Radiologic Physics. [It is noted, at this time, that there are no specialty boards recognized by the Commission or an Agreement State as stipulated in the above quoted sections of 10 CFR 35. It is expected that the ABR will gain recognized status and thus accommodate the requirement.]

6. In accordance with 35.50(a)(2)(iii), ABR needs to confirm that the certification examination in all three sub-specialties of radiologic physics also assesses knowledge and competence in "clinical diagnostic radiological or nuclear medicine physics."

RP Response

The ABR confirms that the certification examination in all three sub-specialties of radiologic physics also assesses knowledge and competence in "clinical diagnostic radiological or nuclear medicine physics" as stipulated in 10 CFR with 35.50(a)(2)(iii). This may be documented through the study guides posted on the ABR website and other communications. For example, Examination Part 1 General (taken by all 3 Radiologic Physics Subspecialties) addresses basic radiologic physics including but not limited to various imaging modalities, the nature of sources of radiation, radioactivity, instrumentation and measurement techniques, and radiation protection. Examination Part 2 includes dosimetry and radiation protection for all subspecialties. The final oral examination (taken for the given Radiologic Physics Subspecialty) includes the following 5 categories: 1.) Radiation Protection and Patient Safety; 2.) Patient-Related Measurements; 3.) Image Acquisition, Processing and Display; 4.) Calibration, Quality Control and Quality Assurance; 5.) Equipment.

7. In accordance with 35.51(a)(3), ABR needs to confirm that the certification examination in Diagnostic Radiologic Physics and Therapeutic Radiologic-Physics also assesses knowledge and competence in "clinical radiation therapy, quality assurance, and treatment planning for external beam therapy, brachytherapy, and stereotactic radiosurgery."

RP Response:

The ABR confirms that certification examination in the Therapeutic Radiologic Physics sub-specialty assesses knowledge and competence in "clinical radiation therapy, quality assurance, and treatment planning for external beam therapy, brachytherapy, and stereotactic radiosurgery" as stipulated in 10 CFR 35.51(a)(3). The Part 2 and Oral examinations for Therapeutic Radiologic Physics includes components in these topic areas. [Note: Training as required for an Authorized Medical Physicist is provided under the ABR certification process for the Therapeutic Radiologic Physics sub-specialty. It does not apply to the Diagnostic Radiologic Physics certification. Diplomates with certification in Diagnostic Radiologic Physics alone would not be seeking AMP status.]