
Evaluation of NRC-Recognized Specialty Boards

U.S. Nuclear Regulatory Commission

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I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) conducted an evaluation of specialty boards that had previously been recognized by the NRC. This evaluation determined whether each specialty board continues to meet the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Part 35, “Medical Use of Byproduct Material.” The evaluation addresses the request in the Staff Requirements Memorandum, “Staff Requirements – SECY-20-0005 – Rulemaking Plan for Training and Experience Requirements for Unsealed Byproduct Material (10 CFR PART 35),” dated January 27, 2022 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML22027A519). The staff determined that 9 of the 11 recognized specialty boards continue to meet the criteria in 10 CFR Part 35 and that two specialty boards have become inactive. In addition, the American Board of Radiology (ABR) has informed the NRC staff that it plans to eliminate its NRC-recognized certification processes by the end of 2023, effectively ending the NRC’s recognition of its program.

II. Background

On August 13, 1998 (63 FR 43516), the NRC published a proposed revision of the Medical Use of Byproduct Material, which included training and experience regulations. The discussion summarized workshops held for stakeholders within the medical community to discuss the range of options for a physician to become an authorized user. The options included possessing a medical degree, medical specialty certifications, examinations, approved training programs, and a set number of training hours. The final rule to 10 CFR Part 35 was published on April 24, 2002 (67 FR 20249). In this final rule and in addition to the alternate pathway, a physician may become an authorized user if certified by a medical or specialty board whose certification process is “recognized” by the Commission.

The staff requirements memorandum (SRM) associated with SECY-02-0194, dated February 12, 2003 (ML030440087), instructed the staff to prepare a proposed rule to modify the training and experience requirements. The SRM also stated that, because of the important role of specialty board certification, a clear regulatory determination for all specialty boards, both new and existing, on whether each board met the revised criteria would be required.

The SRM associated with SECY-03-0145, dated October 9, 2003 (ML032820570), instructed the staff to: (1) implement procedures both for adding new specialty boards to the recognized listing and for removing boards from the recognized list; (2) list the boards meeting the criteria on the NRC’s website (Medical Uses Licensee Toolkit); and (3) implement procedures to evaluate whether a medical event may have been due to inadequate radiation safety training.

On March 30, 2005 (70 FR 16335), the NRC published the final rule, “10 CFR Part 35 – Medical Use of Byproduct Material Recognition of Specialty Boards,” providing, among other things, the updated criteria that specialty boards must meet to be recognized by the NRC or the Agreement States. Once a specialty board’s certification process for a specialty area is recognized by the NRC, any individual certified by that specialty board for the recognized specialty area may be approved to be an authorized user, radiation safety officer (RSO) or associate RSO, authorized medical physicist, or authorized nuclear pharmacist. The NRC license reviewers grant these approvals during licensing actions.

The staff maintains an NRC public website titled “[Specialty Board\(s\) Certification Recognized by NRC Under 10 CFR Part 35](#).” The website lists the specialty boards and specialty areas recognized by the NRC, and it provides samples of board certificates to allow NRC and

Agreement State license reviewers to compare the sample certificates to the certificates submitted as part of a licensing action.

Between 2005 and 2013, the staff reviewed the specialty board applications and granted NRC recognition when appropriate. The staff have not received any new applications in the last nine years; however, the NRC has continued to work with the specialty boards on the recognition of additional specialty areas.

The NRC requests that the specialty boards provide updates when a change in their certification process occurs or if the status of the specialty board changes. The NRC includes this request in each letter sent to the specialty board. The staff works with the specialty boards to ensure that the certificate included on the NRC public website is current. Most communication with the specialty boards has been in response to their outreach or has followed a change in process identified through a revised certificate.

The NRC conducted a self-assessment of its specialty board certification processes, including the implementation of NMSS Office Procedure 70-03, "Procedures for Recognizing, Monitoring, and Terminating the Certification Process of Specialty Boards (ML20351A389)," on September 9, 2019 (ML19360A085). The self-assessment did not include a maintenance review of the specialty boards recognized by the NRC. In this self-assessment, the NRC staff identified that the staff had not conducted maintenance reviews at the 5 year interval specified by NMSS Office Procedure 70-03. This evaluation is the first time that the 5 year review has been completed.

III. Procedure

The staff performed the evaluation using NMSS Office Procedure 70-03, Section 3.11, Monitoring Continued Satisfaction of Recognition Requirements, as indicated below:

- The reviewers should contact each of the specialty boards with a written request that the specialty board confirm that it still satisfies the board recognition criteria, if the specialty board did not submit a notification of change, revised certificate, or any other communication within the last 5 years.

The reviewers should request verification in writing on whether it has changed its name, the name of its specialty certifications, or its certificates. The reviewer should also request that any changes in the board's certification procedures that could affect the recognition status be communicated to the NRC for review. The board does not need to generate any new documents.

The reviewers should create a publicly available ADAMS package with the initial letter and all resulting correspondence.

- The reviewers should evaluate the recognized board's publicly available Web site for changes that could affect the recognition of the board's certification process(es).
- The reviewers should determine if the board's certification program continues to meet the applicable criteria for recognition of board certifications, as established in §§ 35.50(a), 35.51(a), 35.55(a), 35.190(a), 35.290(a), 35.390(a), 35.392(a), 35.394(a), 35.490(a), 35.590(a), and 35.690(a). The reviewers should seek the advice of the ACMUI if necessary.

The reviewers should notify the board regarding any adverse findings via letter signed by the Division Director.

- The reviewers should verify that the listing of NRC-recognized certifications on the NRC public website is up to date. The reviewers should update the listing, if needed.

IV. Process

Confirmation Letters

The staff initiated the review by sending each NRC-recognized specialty board a letter on March 15, 2022. In the letter, the staff requested confirmation from each specialty board that 1) they continue to satisfy the NRC recognition criteria for specialty board certification processes; 2) there had not been changes in the board's certification procedures that could affect the recognition status; and 3) that the certificates provided were current.

The NRC sent the most recent version of the board's certificate as an enclosure to each confirmation letter. The confirmation letter asked each specialty board to confirm that the certificate was current or to submit the newest version. The NRC requested that the specialty board respond within 30 days of the date of the letter.

Methodology

The staff reviewed each specialty board's response letter to determine whether the specialty board continued to meet the NRC recognition criteria. The staff compared any changes in the specialty board's processes, as provided in the response letter, to the NRC regulations to determine whether the changes could affect the recognition of the board's certification processes. In addition to reviewing the response letter and supporting documentation, the staff reviewed applicable sections of the recognized board's public website to determine whether the board's certification processes—training and experience, eligibility, and examination topics—are consistent with NRC requirements.

If the staff still had questions after reviewing the website, the response letter, and any other documentation provided, then the staff contacted the specialty board for additional information. If needed, the specialty board provided additional documentation, such as examination study guides or scientific paper study references, which helped the staff to ensure compliance.

The staff also reviewed the certificates provided by each of the specialty boards. The staff evaluated each certificate to ensure that the specialty board's name and specialty area were clearly marked on each one. The staff considered special marks or notations that were present. The staff also verified and confirmed the effective dates for each certificate. The staff degraded the image and ensured that a "Not Valid" watermark was present prior to adding the certificate to ADAMS as publicly available and uploading it to the NRC public website. The NRC public website displays degraded images to reduce the opportunity for fraudulent manipulation. NRC staff have access to the original certificates if needed through non-public ADAMS.

Communication Logs

Communication between the staff and specialty boards was accomplished through letters, emails, and the telephone. The communication log for each specialty board was added to ADAMS as publicly available.

V. Evaluation

The staff evaluated the specialty boards that had been previously recognized by the NRC, as summarized in Table 1. The staff compared each specialty board's certification process for each NRC-recognized specialty area to the NRC requirements that the specialty board had committed to.

The staff received 10 response letters that confirmed that the specialty board's confirmation processes complied with NRC requirements during active certification timeframes. The American Osteopathic Board of Nuclear Medicine (AOBNM) confirmed that the specialty board's confirmation process had complied with NRC requirements but noted that they had become inactive. The staff were unable to evaluate the Certification Board of Nuclear Endocrinology (CBNE) since there was no response to NRC inquiries.

Of the 10 specialty boards that replied, nine provided new certificates and one confirmed that the certificate maintained on the NRC website was current.

Table 1. The staff analysis for each specialty board's NRC-recognized specialty area.





A green check means that the NRC-recognized specialty board continues or continued to satisfy the board recognition criteria.



A red x means that the NRC staff were unable to conclude that the specialty board satisfied the board recognition criteria.

Specialty Areas	CFR Section	Position	NRC Staff Analysis
1. American Board of Health Physics (ABHP)			
Health Physics	10 CFR 35.50, "Training for Radiation Safety Officer and Associate Radiation Safety Officer."	Radiation Safety Officer (RSO) and Associate RSO	<p>The staff reviewed the ABHP Prospectus and determined that the program met the training and eligibility requirements in 10 CFR 35.50(a)(1)(i) and (ii). The staff reviewed the content on the ABHP website, including Section 4 – Examination Topics – Role Delineation, and Section 7 – Suggested Study References, and determined that the ABHP examination included the safety-significant topics laid out in 10 CFR 35.50(a)(1)(iii).</p> <p>The staff reviewed the two certificates provided: 1) ABHP Health Physics certificate effective from January 1, 2005, to December 31, 2017, and 2) ABHP Health Physics certificate effective on January 1, 2018. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the ABHP certification process for the "Health Physics" specialty area continues to satisfy the board recognition criteria in 10 CFR 35.50.</p>
2. American Board of Medical Physics (ABMP)			
Medical Health Physics	10 CFR 35.50	RSO and Associate RSO	<p>The staff reviewed the eligibility requirements and the professional experience requirements sections of the ABMP Information Booklet, last revised in January 2019. The staff confirmed that the eligibility and professional experience that the ABMP requires as part of their program is in compliance with 10 CFR 35.50(a)(2)(i) and (ii).</p> <p>The staff reviewed the Examination Content Outline provided on the ABMP website and determined that nuclear medicine physics and radiation safety topics were included in the examination. The examination content is in compliance with 10 CFR 35.50(a)(2)(iii).</p> <p>The staff reviewed the new ABMP Medical Health Physics certificate provided, effective on January 1, 2017. The staff updated the NRC public website.</p>

			Based on the response letter and the NRC's subsequent review, the ABMP certification process for the Medical Health Physics specialty area continues to satisfy the board recognition criteria in 10 CFR 35.50.
3. American Board of Nuclear Medicine (ABNM) 			
Nuclear Medicine	<p>10 CFR 35.190, "Training for uptake, dilution, and excretion studies."</p> <p>10 CFR 35.290, "Training for imaging and localization studies."</p> <p>10 CFR 35.390, "Training for use of unsealed byproduct material for which a written directive is required."</p>	Authorized User	<p>The staff reviewed the ABNM response letter and subsequent responses to a request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABNM public website, including the Certification Training Requirements, NRC Compliance, and Exam Content Manual and Study Guide. The staff compared the ABNM criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.190, 35.290, and 35.390.</p> <p>The staff reviewed the four ABNM Nuclear Medicine certificates provided: 1) effective from October 28, 2005, to October 11, 2007; 2) effective from October 12, 2017, to October 6, 2011; 3) effective from October 7, 2011, to October 4, 2012; and 4) effective on October 5, 2012. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the ABNM certification process for the Nuclear Medicine specialty area continues to satisfy the board recognition criteria in 10 CFR 35.190, 35.290, and 35.390.</p>
4. American Board of Radiology¹ (ABR) 			
Diagnostic Medical Physics	10 CFR 35.50	RSO and Associate RSO	<p>The staff reviewed the ABR response letter and subsequent responses to request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABR public website, including the Certification Requirements for Medical Physics, NRC Compliance, and Exam Content Guide and Requirements. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.50.</p>

¹ See discussion, *infra*, regarding the ABR's intention to terminate NRC recognition by the end of 2023.



			<p>The staff reviewed the four ABR Diagnostic Medical Physics certificates: 1) effective from May 1, 2011, to April 30, 2012; 2) effective from May 1, 2012, to April 30, 2013; 3) effective from May 1, 2013, to April 30, 2019; and 4) effective on May 1, 2019. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the ABR certification process for the Diagnostic Medical Physics specialty area continues to satisfy the board recognition criteria in 10 CFR 35.50.</p>
Nuclear Medical Physics	10 CFR 35.50	RSO and Associate RSO	<p>The staff reviewed the ABR response letter and subsequent responses to a request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABR public website, including the Certification Requirements for Medical Physics, NRC Compliance, and Exam Content Guide and Requirements. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.50.</p> <p>The staff reviewed the four ABR Nuclear Medical Physics certificates provided: 1) effective from May 1, 2011, to April 30, 2012; 2) effective from May 1, 2012, to April 30, 2013; 3) effective from May 1, 2013, to April 30, 2019; and 4) effective on May 1, 2019. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the ABR certification process for the Nuclear Medical Physics specialty area continues to satisfy the board recognition criteria in 10 CFR 35.50.</p>
Therapeutic Medical Physics	10 CFR 35.51, "Training for an authorized medical physicist."	Authorized Medical Physicist	<p>The staff reviewed the ABR response letter and subsequent responses to request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABR public website, including the Certification Requirements for Medical Physics, NRC Compliance, and Exam Content Guide and Requirements. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.51.</p> <p>The staff reviewed the four certificates provided, ABR Therapeutic Medical Physics Certificates: 1) effective from May 1, 2011, to April 30, 2012; 2) effective from May 1,</p>


			<p>2012, to April 30, 2013; 3) effective from May 1, 2013, to April 30, 2019; and 4) effective on May 1, 2019. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the ABR certification process for the Therapeutic Medical Physics specialty area continues to satisfy the board recognition criteria in 10 CFR 35.50.</p>
Diagnostic Radiology	<p>10 CFR 35.290</p> <p>10 CFR 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)."</p> <p>10 CFR 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)."</p>	Authorized User	<p>The staff reviewed the ABR response letter and subsequent responses to request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABR public website, including the Certification Requirements for Diagnostic Radiology, NRC Compliance, and Exam Content Guide and Requirements. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.290, 35.392, and 35.394.</p> <p>The ABR confirmed that the certificate on the NRC public website was current.</p> <p>Based on the response letter and the NRC's subsequent review, the ABR certification process for the Diagnostic Radiology specialty area continues to satisfy the board recognition criteria in 10 CFR 35.290, 35.392, and 35.394.</p>
Interventional Radiology / Diagnostic Radiology	<p>10 CFR 35.290</p> <p>10 CFR 35.394</p>	Authorized User	<p>The staff reviewed the ABR response letter and subsequent responses to request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status.</p> <p>The staff reviewed the ABR public website for the Certification Requirements for Interventional Radiology / Diagnostic Radiology, NRC Compliance, and Exam Content Guide. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.290 and 35.394.</p> <p>The ABR confirmed that the certificate on the NRC public website was current.</p>



			Based on the response letter and the NRC's subsequent review, the ABR certification process for the Interventional Radiology / Diagnostic Radiology specialty area continues to satisfy the board recognition criteria in 10 CFR 35.290 and 35.394.
Radiation Oncology	10 CFR 35.390 10 CFR 35.490, "Training for use of manual brachytherapy sources." 10 CFR 35.690, "Training for use of remote afterloader units, teletherapy units, and gamma stereotactic radiosurgery units."	Authorized User	The staff reviewed the ABR response letter and subsequent responses to a request for additional information and received confirmation that there were no major changes to the board (name, certificates, criteria) and its certification process that could affect their recognition status. The staff reviewed the ABR public website for the Certification Requirements for Radiation Oncology, NRC Compliance, and Exam Content Guide. The staff compared the ABR criteria for certification in these references to the NRC regulations and verified that the training and experience requirements met the regulatory requirements in 10 CFR 35.390, 35.490, and 35.690. The ABR confirmed that the certificate on the NRC public website was current. Based on the response letter and the NRC's subsequent review, the ABR certification process for the Radiation Oncology specialty area continues to satisfy the board recognition criteria in 10 CFR 35.390, 35.490, and 35.690.


5. American Board of Science in Nuclear Medicine (ABSNM)

Nuclear Medicine Physics and Instrumentation and Radiation Protection	10 CFR 35.50	RSO and Associate RSO	The staff reviewed the ABSNM public website, titled Examinations, Definitions of Specialty Areas, and verified the training and eligibility requirements met the standard in 10 CFR 35.50(a)(1) and (a)(2). Two of the four specialty areas, "Molecular Imaging" and "Radiopharmaceutical Science" are not NRC-recognized and were outside of the scope of this review. The staff reviewed the <i>Nuclear Science Syllabus</i> , fifth edition, Editor Bennett S. Greenspan, MD, MS, 2018. This is a nonpublic document that is distributed after the candidates pay their examination fee. The staff determined that the examination content met the standard in 10 CFR 35.50(a)(1)(iii) and 35.50(a)(2)(iii). The staff reviewed the two certificates provided: 1) ABSNM Radiation Protection certificate, effective on January 1, 2010, and 2) ABSNM Nuclear Medicine Physics and Instrumentation certificate, effective on January 1, 2010. The staff updated the NRC public website. Based on the response letter and the NRC's subsequent review, the ABSNM certification processes for the Nuclear Medicine Physics and Instrumentation and the Radiation Protection specialty areas continue to satisfy the board recognition criteria in 10 CFR 35.50.
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6. American Osteopathic Board of Nuclear Medicine (AOBNM) 			
Nuclear Medicine	10 CFR 35.290	Authorized User	<p>The staff reviewed the AOBNM response letter and noted that the specialty board had been inactive since March 5, 2019. AOBNM indicated that an Intent to Terminate letter will be sent to the NRC to start the termination process.</p> <p>The staff reviewed the AOBNM public website and confirmed that AOBNM required their candidates to have 700 hours of training and experience in nuclear medicine. The staff determined that the training and experience for certification met the requirements of 10 CFR 35.290(c)(1)(I) – (c)(1)(ii)(G).</p> <p>The staff reviewed the AOBNM public website and documentation provided by the board and determined that AOBNM had met the exam requirements in 10 CFR 35.290(a)(2).</p> <p>The staff reviewed the two certificates provided: 1) AOBNM Nuclear Medicine certificate, effective from May 12, 2017, to September 19, 2018, and 2) AOBNM Nuclear Medicine certificate, effective from September 20, 2018, to March 5, 2019. The AOBNM Nuclear Medicine Certificate (effective from May 12, 2017, to September 19, 2018) did not include the specialty area clearly printed on the certificate. AOBNM submitted a replacement certificate (ML22153A359), which the staff found to be adequate.</p> <p>Based on the response letter and the NRC's subsequent review, the AOBNM certification process for the Nuclear Medicine specialty area satisfied the board recognition criteria in 10 CFR 35.290 <u>until the board became inactive on March 5, 2019.</u></p>
7. American Osteopathic Board of Radiology (AOBR) 			
Diagnostic Radiology	10 CFR 35.290 10 CFR 35.392 10 CFR 35.394	Authorized User	<p>The staff reviewed the AOBR public website titled Diagnostic Radiology Certification Process and confirmed that AOBR requires their candidates to have 700 hours of training and experience in Nuclear Medicine. The staff also reviewed supporting documentation titled "Criteria for AOBR Certification in Diagnostic Radiology", and a preceptor form for the administration of oral I-131 and was able to confirm that the program met the training and experience requirements in 10 CFR 35.290, 10 CFR 35.392, and 10 CFR 35.394.</p> <p>The staff reviewed the AOBR public website titled Diagnostic Radiology Written Exam and supporting documentation titled "Diagnostic Radiology Test Blueprint" and determined that the program was in compliance with the examination content specified in 10 CFR 35.290(a)(2).</p> <p>The staff reviewed the two certificates provided: 1) AOBR Diagnostic Radiology certificate, effective from May 12, 2017, to September 19, 2018, and 2) AOBR Diagnostic Radiology certificate, effective on September 20, 2018. The staff updated the NRC public website.</p>

			Based on the response letter and the NRC's subsequent review, the AOBK certification process for the Diagnostic Radiology specialty area continues to satisfy the board recognition criteria in 10 CFR 35.290, 35.392, and 35.394.
Radiation Oncology	10 CFR 35.390 10 CFR 35.490 10 CFR 35.690	Authorized User	<p>The staff reviewed the AOBK public website titled Radiation Oncology and supporting documentation, "Criteria for AOBK Certification in Radiation Oncology," and confirmed that AOBK required their candidates to have 700 hours of training and experience in Nuclear Medicine. The staff determined that the residency program included 700 hours of training and experience as described in 10 CFR 35.390(b)(1)(I) – (b)(1)(ii)(E).</p> <p>The staff reviewed the AOBK public website titled Radiation Oncology Certification Process and determined that the program was in compliance with the training and experience requirements in 10 CFR 35.490(a)(1) and 10 CFR 35.690(a)(1).</p> <p>The staff reviewed the AOBK public website, "Radiation Oncology Written Exam," as well as supporting documentation titled "Radiation Oncology Test Blueprint" and determined that the program was in compliance with the examination content specified in 10 CFR 35.390(a)(2), 10 CFR 35.490(a)(2), and 10 CFR 35.690(a)(2).</p> <p>The staff reviewed the two certificates provided: 1) AOBK Radiation Oncology certificate, effective from May 12, 2017, to September 19, 2018, and 2) AOBK Radiation Oncology certificate, effective on September 20, 2018. The staff updated the NRC public website.</p> <p>Based on the response letter and the NRC's subsequent review, the AOBK certification process for the "Radiation Oncology" specialty area continues to satisfy the board recognition criteria in 10 CFR 35.390, 35.490, and 35.690.</p>
8. Board of Pharmacy Specialties (BPS) 			
Board Certified Nuclear Pharmacist	10 CFR 35.55, "Training for an authorized nuclear pharmacist."	Authorized Nuclear Pharmacist	<p>The staff reviewed the BPS public website, including Examination Content Outlines, Nuclear and Eligibility Requirements. The staff reviewed the BPS brochure. The staff compared these references to the NRC regulations and determined that BPS met the NRC requirements.</p> <p>The staff reviewed the two program changes submitted in the BPS response letter and determined that compliance with the NRC regulations was not impacted.</p> <p>The staff reviewed the two certificates provided: 1) BPS Board Certified Nuclear Pharmacist certificate, effective January 1, 2018, to December 31, 2019, and 2) BPS Board Certified Nuclear Pharmacist certificate, effective January 1, 2020. The staff updated the NRC public website.</p>

			Based on the response letter and the NRC's subsequent review, the BPS certification process for the Board Certified Nuclear Pharmacist specialty area continues to satisfy the board recognition criteria in 10 CFR 35.55.
9. Canadian College of Physicists in Medicine (CCPM) 			
Radiation Oncology Physics	10 CFR 35.51, "Training for an authorized medical physicist."	Authorized Medical Physicist	<p>The staff reviewed the "Regulations of the Canadian College of Physicists in Medicine, June 2021" document, which was located on the board's publicly available website, and determined that the program was in compliance with training and eligibility requirements in 10 CFR 35.51(a)(1) and (2).</p> <p>The staff reviewed "Medical Physics Questions for Membership Examination, Edition 12.1" and determined that the program was in compliance with the examination content specified in 10 CFR 35.51(a)(3).</p> <p>The CCPM confirmed that the certificate on the NRC public website was current.</p> <p>Based on the response letter and the NRC's subsequent review, the CCPM certification process for the Radiation Oncology Physics specialty area continues to satisfy the board recognition criteria in 10 CFR 35.51.</p>
10. Certification Board of Nuclear Cardiology, Part of the Alliance for Physician Certification and Advancement™			
Medical Specialty Boards and Certification Programs (CBNC) 			
Nuclear Cardiology	10 CFR 35.290	Authorized User	<p>The staff reviewed the CBNC public website including Core Cardiology Training Symposium (COCATS) Guidelines, Information & Templates for Preceptors, and Content Outline & Scope of Knowledge. The staff compared the program material to the 10 CFR 35.290 regulations and concluded that it met the NRC requirements.</p> <p>The staff reviewed the new CBNC Nuclear Cardiology certificate, effective on January 1, 2022. The staff updated the NRC public website.</p> <p>Based on the response letter and NRC's subsequent review, the CBNC certification process for the Nuclear Cardiology specialty area continues to satisfy the board recognition criteria in 10 CFR 35.290.</p>

11. Certification Board of Nuclear Endocrinology (CBNE) 			
Nuclear Endocrinology— Low Dose	10 CFR 35.190 10 CFR 35.392	Authorized User	DISBANDED. Unable to perform evaluation. See Section VI for further discussion.
Nuclear Endocrinology— High Dose	10 CFR 35.190 10 CFR 35.394	Authorized User	DISBANDED. Unable to perform evaluation. See Section VI for further discussion.

VI. Related Topics

Disbanded Board – Certification Board of Nuclear Endocrinology

On January 1, 2013, the staff granted NRC recognition of the CBNE certification processes after reviewing the specialty board application to ensure that CBNE's certification processes met NRC requirements. There is no evidence that CBNE was out of compliance between the time of their recognition and when they became inactive. Therefore, the NRC will no longer recognize CBNE certificates issued after September 27, 2019, when CBNE became inactive.

The CBNE did not respond to the NRC's confirmation letter used for this evaluation, dated March 15, 2022 (ML22069A714); the NRC received a "return to sender" notification. Coupled with the lack of response, the staff observed that the CBNE website was inactive, the telephone was disconnected, and no email address was available. The staff reviewed the archive of documents on ADAMS. The last documented NRC contact with CBNE was on September 17, 2013, when CBNE submitted two certificates to the NRC. The staff did not receive any communication about this board disbanding.

Through a CBNE letter, dated February 22, 2011 (ML111260527), the staff were aware of a relationship between CBNE and the American Association of Clinical Endocrinology (AACE). The staff contacted AACE, and the staff learned from AACE that CBNE had disbanded. AACE did not have information regarding when the last course or CBNE examination was provided.

The staff attempted to contact members of the past board at their medical practices. The staff were not successful with this effort. One past board member did respond (ML22159A276) but did not send confirmation that the specialty board had disbanded and did not provide the date of the last CBNE examination. On May 18, 2022, the NRC sent a letter (ML22129A095) to the last known chair of the CBNE to request confirmation of inactive status and to request the date of the last examination. A copy of this letter was also sent to the last known members of the CBNE board and to AACE. No response was received.

The NRC will no longer recognize CBNE certifications issued after September 27, 2019. The NRC staff based this date on the Florida Department of State records (ML22187A012), which confirmed that CBNE is inactive.

The NRC staff will terminate NRC recognition of the CBNE Nuclear Endocrinology—Low Dose and CBNE Nuclear Endocrinology—High Dose specialty areas. All changes in recognition processes will be communicated to the NRC regions, Agreement States, and the NRC public website will be updated.

Only candidates with CBNE certificates dated between January 1, 2013, and the termination date of September 27, 2019, will be recognized by the NRC as meeting the training and experience requirements. The staff is not aware of any individuals attempting to reference CBNE certification for licensing purposes after 2018.

Inactive Board – American Osteopathic Board of Nuclear Medicine

On April 29, 2022, the staff received the AOBNM response letter (ML22122A155), which stated that the board went into an inactive status on March 5, 2019. The board decided to stop certifying new candidates based on a lack of interest in board certification in Nuclear Medicine.

AOBNM was not aware that the NRC should be informed of the Board no longer certifying new candidates. The staff updated the NRC public website to clarify that the NRC will not recognize any AOBNM certificate issued after March 5, 2019. After AOBNM's intent to terminate NRC recognition is confirmed, the staff will complete the termination process.

The staff evaluated the AOBNM certification program, specifically the Nuclear Medicine specialty area, between May 18, 2006, the effective date of NRC recognition, and March 5, 2019. The staff determined that the Nuclear Medicine specialty area satisfied the board recognition criteria in 10 CFR 35.290 until the board became inactive on March 5, 2019.

Missing Certificate – American Board of Health Physics

At the beginning of this evaluation, the staff did not have an ABHP certificate. The NRC recognized this board in 2006 with an effective date of January 1, 2005. The missing certificate was identified as an error in the NRC's self-assessment of specialty board certification processes. In October and November of 2019, the staff tried to contact the ABHP via the telephone and email but did not receive a response. The NRC sent a February 14, 2020, letter (ML19357A271) to the ABHP requesting the certificate, but ABHP did not respond.

During this evaluation, the staff were successful in contacting ABHP. The specialty board informed the NRC staff that the board was under new management and that the NRC letter had not been shared with the new management. The staff emailed the new executive director of ABHP a copy of the February 14, 2020, letter on March 9, 2022.

On March 25, 2022, ABHP replied to the February 14, 2020, letter with a response letter (ML22081A236) and two certificates. One certificate was used between January 1, 2005, and December 31, 2017. The other certificate became effective on January 1, 2018, and is still in use. The two ABHP certificates were added to the NRC public website.

This matter has been resolved and the ABHP is in good standing.

Intent to Terminate – American Board of Radiology

During the specialty board evaluation, ABR announced their intent to terminate NRC recognition of all ABR certification processes. ABR communicated this intent in a letter dated April 6, 2022 (ML22091A272) and stated that they intended to terminate by December 31, 2023. The letter also stated that ABR would continue to comply with the NRC regulations until that date. The staff will initiate the formal termination process with ABR six months before the intended termination date. Engagement on the impacts of this termination has begun.

The ABR currently maintains six specialty areas with NRC recognition, as shown in Table 2. The ABR's certification processes include authorized user-eligible (diagnostic radiology, interventional radiology/diagnostic radiology, radiation oncology), radiation safety officer-eligible (diagnostic medical physics and nuclear medical physics), and authorized medical physicist-eligible (therapeutic medical physics).

After ABR's termination date, individuals seeking to be recognized as authorized users, RSOs or associate RSOs, and authorized medical physicists on NRC licenses can choose between two options: 1) to obtain certification from a different NRC-recognized specialty board or 2) to use the alternate training and experience pathway² (alternate pathway) in 10 CFR Part 35 by providing documentation of the required training and experience to the NRC or Agreement States via the licensing process. The staff is engaging with external stakeholders to understand the impacts of ABR's termination request and to explore potential mitigation strategies, as appropriate. The current feedback from some professional societies is that the impact to the medical community may not be severe. The staff plans to hold meetings with the Agreement States, the medical community, professional societies, and other stakeholders to discuss potential impacts in fall 2022. The staff will also seek advice from the Advisory Committee on the Medical Uses of Isotopes regarding opportunities to mitigate potential impacts to the medical community.

Table 2. ABR currently issues certificates for six different NRC-recognized specialty areas. The ABR certification process supports candidates seeking positions as RSOs, associate RSOs, authorized medical physicists, and authorized users.

Specialty Areas	NRC Regulations	Positions
Diagnostic Medical Physics	10 CFR 35.50	RSOs and Associate RSOs
Nuclear Medical Physics	10 CFR 35.50	RSOs and Associate RSOs
Therapeutic Medical Physics	10 CFR 35.51	Authorized Medical Physicists
Interventional Radiology / Diagnostic Radiology	10 CFR 35.290 10 CFR 35.394	Authorized Users
Radiation Oncology	10 CFR 35.390 10 CFR 35.490 10 CFR 35.690	Authorized Users
Diagnostic Radiology	10 CFR 35.290 10 CFR 35.392	Authorized Users

² The alternate pathway is a set of training and experience criteria that includes classroom and laboratory training, supervised work experience, and preceptor attestation, established in 10 CFR Part 35. The approval process is based on an evaluation by the NRC or an Agreement State during the licensing process. This evaluation can be used to ensure compliance with the NRC training and experience requirements when an NRC-recognized specialty board's evaluation of the candidate's training and experience is not applicable.

VII. Public Record

The following documents were added to ADAMS as publicly available to maintain transparency and accessibility.

Table 3. The ADAMS Accession numbers corresponding to each of the following documents are listed for each specialty board.

Specialty Boards	Confirmation Letters	Specialty Board's Response Letters	Communication Logs	Completion Letters
American Board of Health Physics	ML22068A013	ML22081A236 ML22095A153	ML22129A194	ML22139A316
American Board of Medical Physics	ML22068A111	ML22101A057	ML22129A190	ML22139A318
American Board of Nuclear Medicine	ML22069A712	ML22105A576 ML22151A323	ML22161A536	ML22145A560
American Board of Radiology	ML22068A133	ML22112A120	ML22161A335	ML22145A554
American Board of Science in Nuclear Medicine	ML22069A178	ML22090A256	ML22129A184	ML22139A314
American Osteopathic Board of Nuclear Medicine	ML22068A145	ML22122A154 ML22153A359	ML22159A304	This board is in the termination process.
American Osteopathic Board of Radiology	ML22069A713	ML22102A319	ML22159A294	ML22145A551
Board of Pharmacy Specialties	ML22068A014	ML22081A300	ML22129A147	ML22139A327
Canadian College of Physicists in Medicine	ML22069A715	ML22095A147	ML22129A177	ML22139A319
Certification Board of Nuclear Cardiology, Part of the Alliance for Physician Certification and Advancement™ Medical Specialty Boards and Certification Programs	ML22068A015	ML22101A069	ML22161A041	ML22139A323
Certification Board of Nuclear Endocrinology	ML22069A714	None	ML22159A276	This board is in the termination process.

VIII. Conclusion

The staff determined that 9 of the 11 specialty boards are still active and continued to meet the NRC recognition criteria as established in the regulations. The NRC public website was updated to reflect changes in the certificates.

The staff evaluation of ABR certification processes determined that each NRC-recognized specialty area was in compliance with the NRC requirements. The staff reviewed the ABR letter dated April 6, 2022, in which ABR communicated their intent to terminate the NRC recognition of all ABR certification processes that meet the training and experience requirements in 10 CFR Part 35. ABR will continue to be an NRC-recognized specialty board until the NRC terminates

the recognition on December 31, 2023. The staff will initiate the termination process with ABR six months before the intended termination date.

The staff determined that two boards, AOBNM and CBNE, were inactive. The AOBNM participated in the review, and the staff determined that their certification processes had complied with NRC requirements. AOBNM became inactive on March 5, 2019. The NRC will terminate its recognition of AOBNM after the board confirms that is its intent. CBNE did not participate in the review and the staff were unable to conclude that it satisfied the NRC requirements prior to its inactive status. The NRC terminated the recognition of the CBNE certification processes and will not recognize any CBNE certificate issued after September 27, 2019.