

**From:** Cynthia Flannery  
**To:** Stephen Thomas  
**Date:** 3/9/06 2:56PM  
**Subject:** Re: Response to Oct. 14 letter - Clarification

Dear Dr. Thomas,

This e-mail is a follow up to your February 17, 2006 e-mail and our March 7 and 9, 2006 telephone conversations, in which you asked me to review a document of the web site information and your responses to two concerns expressed in NRC's e-mail, dated 11/21/2005.

The following asterisk statement (found in the attached document from your Feb. 17 e-mail and the ABR web site information) provides the clarification that NRC requested for item 2(a) of its e-mail, dated 11/21/2005:

"Your practical training and/or supervised work experience in medical physics must be under the supervision/direction of an ABR-certified radiologic physicist."

My comments to the attached document from your Feb. 17 e-mail and the web site information are as follows:

1. Your attached document includes a list of the exam topics for "Therapeutic Radiologic Physics." ABR will need to ensure that they test their candidates on all of the topics listed in 10 CFR 35.51(a)(3) and that it is accurately reflected in the list of exam topics on ABR's web site. The list of exam topics in 10 CFR 35.51(a)(3) is as follows:

- clinical radiation therapy**
- radiation safety
- calibration**
- quality assurance
- treatment planning for external beam therapy, brachytherapy and stereotactic radiosurgery**

Also, candidates of the other two sub-specialties (Diagnostic Radiologic Physics and Medical Nuclear Physics) for which ABR is seeking recognition under 10 CFR 35.50 (Training for Radiation Safety Officer) must be tested on the topics listed in 10 CFR 35.50(a)(2)(iii) and this must be accurately reflected in the list of exam topics on ABR's web site. The list of exam topics in 10 CFR 35.50(a)(2)(iii) is as follows:

- clinical diagnostic radiological or nuclear medicine physics**
- radiation safety

The above topics that are in bold font are not explicitly stated in ABR's list of exam topics.

2. It was noted on ABR's website that ABR accepts international medical graduates as candidates for ABR certification in Radiologic Physics. ABR will need to determine whether the international candidates meet the same requirements as other ABR Radiologic Physics candidates that are required to meet NRC's criteria (i.e., degree requirements, degree from an accredited college or university, minimum number of years of full-time practical training and/or supervised experience in medical physics, and training and experience under the supervision of a medical physicist who is certified in medical physics by a specialty board that is recognized by the NRC or an Agreement State). If the international candidates do not meet NRC's criteria, the ABR will need to provide a method that ABR will use to distinguish the diplomates who do meet the criteria in 35.50 and 35.51 from those who do not.

3. The third bullet under Part 1 of the "Requirements for the Primary Exams" of ABR's web site states that Part 1 of the exam can be taken by individuals who have not yet completed the degree requirements but "are enrolled in an acceptable graduate program in medical physics." Clarification is needed to ensure that these candidates will meet the degree requirements prior to successfully completing Parts 2 and 3 of the exam.

ABR will need to print out the web page and include it as an enclosure with ABR's official reply to NRC for ABR's application for recognition of its certification processes. Communications from the ABR associated with applying for recognition of one or more of its certification processes should continue to be addressed to:

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

We look forward to your formal response after ABR's meeting so we can continue the review of ABR's application for recognition.

Respectfully,  
Cindy

Cindy Flannery, CHP, Team Leader  
Medical Radiation Safety Team  
Materials Safety and Inspection Branch  
Division of Industrial and Medical Nuclear Safety  
Office of Nuclear Material Safety and Safeguards  
U.S. Nuclear Regulatory Commission  
Mail Stop T8-F3  
Washington, DC 20555  
Phone: 301-415-0223  
FAX: 301-415-5369  
e-mail: [cmf@nrc.gov](mailto:cmf@nrc.gov)

>>> "Stephen R. Thomas" <[thomassr@uc.edu](mailto:thomassr@uc.edu)> 02/17/06 12:18 PM >>>  
Dear Ms. Flannery:

The ABR believes we now have addressed the two concerns of the NRC as expressed in your letter of 11/21/2005 with regard to certain aspects of the ABR response within the Radiologic Physics section. However, before assembling the final package for submission to the NRC, I would appreciate your input on the following points outlined in more detail in the attached (including material copied from the ABR web site for convenience of your review).

In brief, the issues were as follows:

**A. Issue related to ABR Certified Radiologic Physicist as the Required Preceptor**

**NRC Concern:** From C. Flannery (11/21/2005): The ABR-provided response [for questions #4 and #5] indicates that the preceptor must be an ABR-certified medical physicist, but the web site information permits the preceptor to be an ABR-certified physician. If the provided answer is correct, the web site information needs to be revised.

**ABR Action:** Clarify the situation. The preceptor must be an ABR-certified radiologic physicist [medical physicist] as stipulated in the asterisk

statement in the website material below the table (see attached). The requirement for providing references with the application from 2 individuals (ABR certified radiological physicist and physician) constitutes a distinct and separate function from that of the preceptor. The medical physicist providing the reference may or may not be the same individual as the preceptor. The reference may come from a medical physicist who is currently aware of the candidate's professional activities in the field but who may not have been involved in the actual training. The application form filled out by the candidate makes it clear that the training must have been acquired under the supervision of an ABR-certified radiologic physicist.

The ABR believes that the intent desired by the NRC is encompassed in the current wording/description provided within the Radiologic Physics Requirements section of the web site (printed below). However, if the NRC has suggestions that would further clarify this point, The ABR would be happy to review them for possible inclusion.

**B. Issue Related to Training in stereotactic radiosurgery**  
NRC Concern: From C. Flannery (11/21/2005): The ABR-provided response [for question #7] indicates that the certification exam in Therapeutic Radiologic Physics includes stereotactic radiosurgery, but the web site information on examinations does not mention stereotactic radiosurgery anywhere. If the provided answer is correct, the web site information needs to be revised.

ABR Action: The certification exam in Therapeutic Radiologic Physics definitely includes stereotactic radiosurgery as one of the areas encompassed. The ABR proposes to modify the web site by adding "Stereotactic Radiosurgery" in the Study Guide list of topics under Therapeutic Radiologic Physics as shown in the attached. The ABR would appreciate the NRC's response confirming that this action is satisfactory or suggestion of an alternate action that would satisfy the intent.

We appreciate your advance review if this material and guidance as to how to proceed if different from the above.

I look forward to hearing from you. As soon as these last issues are resolved, we will send the final response including the printout of relevant web site pages for Radiologic Physics.

Thank you,

Stephen R. Thomas, Ph.D.

At 03:32 PM 2/7/2006, Cynthia Flannery wrote:

>Dr. Thomas,

>

>To clarify NRC's request for "an ABR-supplied copy of referenced ABR web site information," the action required by ABR is printing out the web page that contains the referenced information and including it as an enclosure in your formal response memo/letter to NRC. It does not need to be signed or dated (although the printout will most likely have the date and the web site in the footer).

>

>Because the information provided on a web site can be changed at any time,

>a printout of ABR's web site (supplied by ABR) serves as documentation to  
>the NRC of ABR's current communication to the candidates of ABR's current  
>requirements for their candidates to get board certified.

>  
>I hope this adequately describes what NRC is requesting. If not, please  
>don't hesitate to contact me.

>  
>Cindy

>  
>Cindy Flannery, CHP, Team Leader  
>Medical Radiation Safety Team  
>Materials Safety and Inspection Branch  
>Division of Industrial and Medical Nuclear Safety  
>Office of Nuclear Material Safety and Safeguards  
>U.S. Nuclear Regulatory Commission  
>Mail Stop T8-F3  
>Washington, DC 20555  
>Phone: 301-415-0223  
>FAX: 301-415-5369  
>e-mail: [cmf@nrc.gov](mailto:cmf@nrc.gov)

>  
>  
>  
>>> "Stephen R. Thomas" <[thomassr@uc.edu](mailto:thomassr@uc.edu)> 02/06/06 6:54 PM >>>  
>Dear Ms. Flannery:

>  
>We are finalizing our response to the points raised in your letter of  
>11/21/2005 (copied below) regarding the Radiologic Physics section. We  
>would appreciate clarification as to the meaning of "An ABR-supplied copy  
>of referenced ABR web site information." Is this a dated, signed print out  
>of the relevant text from the ABR web site? Or is some other  
>action/documentation required on our part?

>  
>We appreciate your clarification of this point.

>  
>Thank you,

>  
>Stephen R. Thomas, Ph.D.

>  
>  
>At 04:16 PM 11/21/2005, you wrote:

> >Dear Dr. Hattery:

> >  
> >I am writing in response to your October 14, 2005 letters in which you stated.  
The ABR believes that th  
> >were seeking recognition of the American Board of Radiology's (ABR)  
> >Diagnostic Radiology, Radiation Oncology and Radiologic Physics  
> >certification processes by the U.S. Nuclear Regulatory Commission (NRC).  
> >There are several statements in the letters which preclude recognition of  
> >ABR certification processes without further input from the ABR. The  
> >issues that require attention are listed and explained below.

> >  
> >Diagnostic Radiology:

> >1. The ABR-provided responses to no. 1 are OK, but it does not  
> >comport with information posted on the ABR web site. The response  
> >indicates that candidates seeking certification for diagnostic radiology

> > must meet the specific training and experience requirements described in  
> > 10 CFR 35.290(c)(1)(i) and (c)(1)(ii) and 10 CFR 35.392(c)(1) and (c)(2),  
> > but the web site information on training and experience does not list the  
> > required topics. If the provided answer is correct, the web site  
> > information needs to be revised to include that the residency program must  
> > include the topics listed in 10 CFR 35.290(c)(1)(i) and (c)(1)(ii) and 10  
> > CFR 35.392(c)(1) and (c)(2).

> > An ABR-supplied copy of referenced ABR web site information is  
> > needed.

> >

> > 2. The ABR web site indicates that the residency must include a 16  
> > week rotation in clinical nuclear medicine and that didactic instruction  
> > will be required to cover the nuclear medicine topics cited in sections  
> > 35.290 (imaging and localization studies) and 35.392 (oral administration  
> > of I-131 in quantities less than or equal to 33mCi). The web site further  
> > states that this instruction can be given in classroom/laboratory sessions  
> > during the clinical rotations in nuclear medicine, or at other times  
> > during the residency. First, a 16 week rotation in clinical nuclear  
> > medicine may not provide 700 hours of training and experience. Second, it  
> > appears by the way the web site is stated, that a significant part of the  
> > 700 hours is spent in clinical areas not directly related to basic  
> > radionuclide handling techniques and radiation safety (e.g.,  
> > interpretation of the films and images). Considering the fact that  
> > residents may spend a significant portion of this rotation on subjects not  
> > related to basic radionuclide handling techniques and radiation safety  
> > applicable to the topics listed in 10 CFR 35.290(c)(1)(i) and (c)(1)(ii)  
> > and 10 CFR 35.392(c)(1) and (c)(2), please clarify how the ABR can ensure  
> > that all ABR candidates meet the 700 hours of training and work experience  
> > in radiation safety in nuclear medicine.

> >

> > 3. The ABR-provided responses to the no. 2 are OK, but it does not  
> > comport with information posted on the ABR web site. The response  
> > indicates that candidates seeking certification for diagnostic radiology  
> > must obtain their work experience under the supervision of an authorized  
> > user who meets the requirements in 10 CFR 35.290(c)(1)(ii) and 10 CFR  
> > 35.392(c)(2), but the web site information does not mention this  
> > requirement. If the provided answer is correct, the web site information  
> > needs to be revised.

> > Here, too, an ABR-supplied copy of referenced ABR web site  
> > information is needed.

> >

> > 4. The ABR website indicates that ABR accepts candidates from  
> > Canadian residency programs. Please provide the method that ABR uses to  
> > distinguish candidates that meet the requirements in 10 CFR  
> > 35.290(c)(1)(ii) and 10 CFR 35.392(c)(2) (i.e., obtained work experience  
> > under the supervision of an authorized user) from those candidates who do  
> > not (i.e., obtained work experience in Canada).

> >

> > 5. The ABR-provided responses to the no. 3 are OK, but it does not  
> > comport with information posted on the ABR web site. The response  
> > indicates that the certification exam in diagnostic radiology includes  
> > assessment of knowledge and competence in radiation safety, radionuclide  
> > handling and quality control, but the web site information on examinations  
> > does not explicitly list these anywhere. If the provided answer is  
> > correct, the web site information needs to be revised.

> > Here, too, an ABR-supplied copy of referenced ABR web site

> > information is needed.

> >

> >

> >Radiation Oncology:

> >1. The ABR-provided responses to nos. 1 and 2 are OK.

> >

> >2. For no. 3, the ABR-provided response indicates that candidates

> >seeking certification for radiation oncology must meet the specific

> >training and experience requirements described in 10 CFR 35.390(b)(1)(i)

> >through 10 CFR 35.390(b)(1)(ii)(E) for use of unsealed byproduct material

> >for which a written directive is required, but the web site information on

> >training and experience does not mention the minimum number of hours or

> >the required topics. If the provided answer is correct, the web site

> >information needs to be revised to include that the residency program must

> >include the minimum number of hours of training and experience (i.e., 700

> >hours) in the topics listed in 10 CFR 35.390(b)(1)(i)(A) through 10 CFR

> >35.390(b)(1)(ii)(E).

> > An ABR-supplied copy of referenced ABR web site information is

> > needed.

> >

> >3. For no. 4, the ABR-provided response indicates that candidates

> >seeking certification for radiation oncology must obtain their work

> >experience under the supervision of an authorized user who meets the

> >requirements in 10 CFR 35.390(b)(1)(ii), but the web site information does

> >not mention this requirement. If the provided answer is correct, the web

> >site information needs to be revised.

> > Here, too, an ABR-supplied copy of referenced ABR web site

> > information is needed.

> >

> >4. The ABR website indicates that ABR accepts candidates from

> >Canadian residency programs. Please clarify how ABR will distinguish all

> >of the candidates that meet the requirements in 10 CFR 35.390(b)(1)(ii)

> >(i.e., obtained work experience under the supervision of an authorized

> >user) from those candidates who do not (i.e., obtained work experience in

> >Canada).

> >

> >5. For no. 5, the ABR-provided response indicates that the

> >certification examination in Radiation Oncology assesses knowledge and

> >competence in the clinical use of unsealed byproduct material for which a

> >written directive is required. The ABR-provided response to this question

> >is OK, but an ABR-supplied copy of referenced ABR web site information is

> >needed that includes the required exam topics (i.e., radiation safety,

> >radionuclide handling, quality assurance, treatment planning, and clinical

> >use of the following: unsealed byproduct material for which a written

> >directive is required; manual brachytherapy; stereotactic radiosurgery;

> >remote afterloaders; and external beam therapy). Of the listed required

> >exam topics, only radiation safety, radionuclide handling, and quality

> >assurance could be found on the website.

> >

> >

> >Radiologic Physics:

> >1. The ABR-provided responses to 4 of your 7 questions are OK. All that

> >is needed for nos. 1, 2, 3, & 6 is an ABR-supplied copy of referenced ABR

> >web site information.

> >

> >2. The ABR-provided responses to the other 3 of your 7 questions are OK,

> >but do not comport with information posted on the ABR web site.  
> > a) For nos. 4 & 5, the ABR-provided response indicates that the  
> > preceptor must be an ABR-certified medical physicist, but the web site  
> > information permits the preceptor to be an ABR-certified physician. If  
> > the provided answer is correct, the web site information needs to be  
> > revised.  
> > b) For no. 7, the ABR-provided response indicates that the  
> > certification exam in Therapeutic Radiologic Physics includes  
> > stereotactic radiosurgery, but the web site information on examinations  
> > does not mention stereotactic radiosurgery anywhere. If the provided  
> > answer is correct, the web site information needs to be revised.  
> > Here, too, an ABR-supplied copy of referenced ABR web site  
> > information is needed.  
> >  
> >In summary, with a few small adjustments to web-posted information, to  
> >comport with answers provided, and provision to NRC of the referenced  
> >web-posted information, the ABR application for its radiological physics  
> >certification program appears to be approvable.  
> >  
> >Review of ABR's application for recognition will continue upon receipt of  
> >ABR's official reply to the issues needing attention that are listed and  
> >explained above.  
> >  
> >Communications from the ABR associated with applying for recognition of  
> >one or more of its certification processes should continue to be  
> >addressed to:  
> >  
> > U.S. Nuclear Regulatory Commission  
> > ATTN: Mr. Thomas H. Essig, Chief, Materials Safety  
> > and Inspection Branch (MS T8F3)  
> > 11545 Rockville Pike  
> > Rockville, MD 20852  
> >  
> >For further information or for questions, please contact me at (301)  
> >415-0223, [cmf@nrc.gov](mailto:cmf@nrc.gov).  
> >  
> >Respectfully,  
> >Cindy Flannery

CC: rattery@theabr.org

**Mail Envelope Properties (44108876.590 : 17 : 35798)**

**Subject:** Re: Response to Oct. 14 letter - Clarification  
**Creation Date:** 3/9/06 2:56PM  
**From:** Cynthia Flannery  
**Created By:** CMF@nrc.gov

**Recipients**  
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MESSAGE	31860	03/09/06 02:56PM

**Options**

**Expiration Date:** None  
**Priority:** Standard  
**Reply Requested:** No  
**Return Notification:**  
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**Concealed Subject:** No  
**Security:** Standard