



Radioactive Materials
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AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION
(for uses defined in accordance with 4731.4440)

Name of Proposed Authorized User

State or Territory Where Licensed

Requested Authorization(s). (Check all that apply.)

- 4731.4440 Use of unsealed radioactive material for which a written directive is required
4731.4440 Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels)
4731.4440 Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels)
4731.4440 Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required
4731.4440 Parenteral administration of any other radionuclide for which a written directive is required

PART I - TRAINING AND EXPERIENCE

(Select one of the three methods below)

Training and Experience, including board certification, must have been obtained within seven years preceding the date of application or the individual must have obtained related continuing education and experience since the required training and experience was completed. Provides dates, duration, and description of continuing education and experience related to the uses checked above.

- 1. Board Certification
a. Provide a copy of the board certification
b. For 4731.4443, provide documentation on supervised clinical case experience. The table in 3.c. may be used to document this experience.
c. For 4731.4446, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. Tables in 3.a., 3.b., and 3.c. may be used to document this experience.
d. Skip to and complete Part II Preceptor Attestation
2. Current 4731.4440, 4731.4450, 4731.4463 Authorized User Seeking Additional Authorization
a. Authorized User on Radioactive Materials License _____ in accordance with the requirements below or equivalent NRC or Agreement State requirements. (Check all that apply.)
4731.4443 4731.4444 4731.4445 4731.4458 4731.4479
b. If currently authorized for a subset of clinical uses in accordance with 4731.4440, provide documentation on additional required supervised case experience. The table in 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.
c. If currently authorized in accordance with 4731.4458 or 4731.4479 and requesting authorization for 4731.4446, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. Tables in 3.a., 3.b., and 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.

**AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

3. Training, and Experience for Proposed Authorized User

a. Classroom and Laboratory Training

4731.4443 4731.4444 4731.4445 4731.4446

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation			
Radiation Protection			
Mathematics pertaining to the use and measurement of radioactivity			
Chemistry of radioactive material for medical use			
Radiation biology			
Total Hours of Training:			

b. Supervised Work Experience

4731.4443 4731.4444 4731.4445 4731.4446

If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this page.

Description of Experience	Location of Experience and License or Permit Number of Facility	Confirm	Dates of Work Experience*
Ordering, receiving, and unpacking radioactive material safely and performing the related radiation surveys		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Calculating, measuring, and safely preparing patient or human research subject dosages		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using administrative controls to prevent a medical event involving the use of unsealed radioactive material		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Using procedures to contain spilled radioactive material safely and proper decontamination procedures		<input type="checkbox"/> Yes <input type="checkbox"/> No	

**AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

3. **Training and Experience for Proposed Authorized User (continued)**

b. **Supervised Work Experience (continued)**

Supervising Individual	License or Permit Number listing supervising individual as an authorized user
Supervising individual meets the requirements below or equivalent NRC or Agreement State requirements. <i>(Check all that apply.)¹</i>	
<input type="checkbox"/> 4731.4443 <input type="checkbox"/> 4731.4444 <input type="checkbox"/> 4731.4445 <input type="checkbox"/> 4731.4446	With experience administering dosages of: <input type="checkbox"/> Oral NaI-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels) <input type="checkbox"/> Oral NaI-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels) <input type="checkbox"/> Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive <input type="checkbox"/> Parenteral administration of any other radionuclide requiring a written directive
¹ Supervising Authorized User must have experience in administering dosages in the same dosage category or categories as the individual requesting authorized user status.	

c. **Supervised Clinical Case Experience**

If more than one supervising individual is necessary to document supervised work experience, provide multiple copies of this page.

Description of Experience	Number of Cases Involving Personal Participation	Location of Experience and License or Permit Number of Facility	Dates of Work Experience*
Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels)			
Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels)			
Parenteral administration of any beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV for which a written directive is required			
Parenteral administration of any other radionuclide for which a written directive is required			
<hr style="width: 20%; margin-left: 0;"/> (List radionuclides)			

**AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

3. Training and Experience for Proposed Authorized User (continued)

c. Supervised Clinical Case Experience (continued)

Supervising Individual	License or Permit Number listing supervising individual as an authorized user
Supervising individual meets the requirements below or equivalent NRC or Agreement State requirements. <i>(Check all that apply.)¹</i>	
<input type="checkbox"/> 4731.4443 <input type="checkbox"/> 4731.4444 <input type="checkbox"/> 4731.4445 <input type="checkbox"/> 4731.4446	With experience administering dosages of: <input type="checkbox"/> Oral NaI-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels) <input type="checkbox"/> Oral NaI-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels) <input type="checkbox"/> Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive <input type="checkbox"/> Parenteral administration of any other radionuclide requiring a written directive
¹ Supervising Authorized User must have experience in administering dosages in the same dosage category or categories as the individual requesting authorized user status.	

d. Provide completed Part II Preceptor Attestation

PART II – PRECEPTOR ATTESTATION

Note: This part must be completed by the individual's preceptor. The preceptor does not have to be the supervising individual as long as the preceptor provides, directs, or verifies the training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each.

First Section

Check one of the following for each requested authorization:

For 4731.4443

Board Certification

I attest that _____ has satisfactorily completed the requirements
Name of Proposed Authorized User

in 4731.4443 Subpart 2. Item A.

OR

Training, and Experience

I attest that _____ has satisfactorily completed 700 hours of
Name of Proposed Authorized User

training in medical physics and an additional year of full-time experience as required by program consisting of both 200 hours of classroom and laboratory training and one year of full-time radiation safety experience as required by 4731.4443 Subpart 1. Item B.

**AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

Preceptor Attestation (continued)

First Section (continued)

For 4731.4444 (Identical Attestation Statement Regardless of Training and Experience Pathway)

I attest that _____ has satisfactorily completed 80 hours of
Name of Proposed Authorized User
Classroom and laboratory training as required by 4731.4444 Subpart C. Item (1) and the supervised work and clinical case experience in 4731.4444 Subpart C. Item (2).

For 4731.4445 (Identical Attestation Statement Regardless of Training and Experience Pathway)

I attest that _____ has satisfactorily completed 80 hours of
Name of Proposed Authorized User
Classroom and laboratory training as required by 4731.4445 Subpart C. Item (1) and the supervised work and clinical case experience in 4731.4445 Subpart C. Item (2).

Second Section

I attest that _____ has satisfactorily completed the required clinical case
Name of Proposed Authorized User
experience required in 4731.4443 Subpart 1. Item B.(1).vi. listed below:

- 4731.4440 Oral NaI-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels)
- 4731.4440 Oral NaI-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels)
- 4731.4440 Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive
- 4731.4440 Parenteral administration of any other radionuclide requiring a written directive

Third Section

I attest that _____ has satisfactorily achieved a level of competency
Name of Proposed Authorized User
sufficient to function independently as an Authorized User for:

- 4731.4440 Oral NaI-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels)
- 4731.4440 Oral NaI-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels)
- 4731.4440 Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive
- 4731.4440 Parenteral administration of any other radionuclide requiring a written directive

**AUTHORIZED USER
TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)**

Preceptor Attestation (continued)

Fourth Section

For 4731.4458 or 4731.4479 Authorized User:

I attest that _____ is an Authorized User in accordance with
Name of Proposed Authorized User
 4731.4458 or 4731.4479 or equivalent NRC or Agreement State requirements, has satisfactorily completed 80 hours of classroom and laboratory training as required by 4731.4446 Subpart B Item 1 and the supervised work and clinical case experience required by 4731.4446 Subpart B Item 2, and has achieved a level of competency sufficient to function independently as an Authorized User for:

- 4731.4440 Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive
- 4731.4440 Parenteral administration of any other radionuclide requiring a written directive

OR

Board Certification

I attest that _____ has satisfactorily completed the board
Name of Proposed Authorized User
 Certification requirements in 4731.4446 Subpart A Item (3). has satisfactorily completed 80 hours of classroom and laboratory training as required by 4731.4446 Subpart B Item 1 and the supervised work and clinical case experience required by 4731.4446 Subpart B. Item 2, and has achieved a level of competency sufficient to function independently as an Authorized User for:

- 4731.4440 Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive
- 4731.4440 Parenteral administration of any other radionuclide requiring a written directive

Fifth Section

Complete the following for preceptor attestation and signature

- I meet the requirements below or equivalent NRC or Agreement State requirements as an Authorized User for:
 - 4731.4443 4731.4444 4731.4445 4731.4446
- I have experience administering dosages in the following categories for which the proposed Authorized User is requesting authorization.
 - Oral NaI-131 requiring a written directive in quantities less than or equal to 33 millicuries (1.22 gigabecquerels)
 - Oral NaI-131 requiring a written directive in quantities greater than 33 millicuries (1.22 gigabecquerels)
 - Parenteral administration of beta-emitter or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive
 - Parenteral administration of any other radionuclide requiring a written directive

Name of Preceptor	Signature	Date
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Telephone Number	License or Permit Number	Facility Name
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4731.4440 AUTHORIZED USER

General Instructions and Guidance for Completing MDH Form 313 Series

Recentness of Training

The required training and experience, including board certification, must be obtained within the seven years preceding the date of the application, or the individual must document having had related continuing education, retraining, and experience since obtaining the required training and experience. Examples of acceptable continuing education and experience include the following:

1. Successful completion of classroom and laboratory review courses that include radiation safety practices relative to the proposed type of authorized medical use;
2. Practical and laboratory experience with patient procedures using radioactive material for the same use(s) for which the applicant is requesting authorization;
3. Practical and laboratory experience under the supervision of an AU at the same or another licensed facility that is authorized for the same use(s) for which the applicant is requesting authorization; and
4. For therapy devices, experience with the therapy unit and/or comparable linear accelerator experience and completion of an in-service review of operating and emergency procedures relative to the therapy unit to be used by the applicant.

If the applicant is proposing an individual for more than one type of authorization, the applicant may need to either submit multiple MDH Form 313 series forms or fill out some sections more than once. Also, if the applicant requests a physician be authorized for both high dose rate remote afterloading and gamma stereotactic radiosurgery in accordance with 4731.4463, only one form, MDH Form 313 (AUS) needs to be completed, but one part (i.e., "Supervised Work and Clinical Experience") must be filled out twice.

If you need to identify a license and it is an NRC or Agreement State license not issued by MDH, provide a copy of the license. If you need to identify an NRC Master Materials License permit, provide a copy of the permit.

If you need to identify an individual (i.e., supervising individual or preceptor) who is authorized under a broad scope license or broad scope permit, provide a copy of the permit issued by the broad scope licensee/permittee.

Name of individual

Provide the individual's complete name so that MDH can distinguish the training and experience received from that received by others with a similar name.

Note: Do not include personal or private information (e.g., date of birth, social security number, home address, personal phone number) as part of your qualification documentation.

State or territory where licensed

Physicians, dentists, podiatrists, and pharmacists are required to be licensed by a state or territory of the United States, the District of Columbia, or the Commonwealth of Puerto Rico to prescribe drugs in the practice of medicine, practice of dentistry, practice of podiatry, or practice of pharmacy, respectively.

Requested Authorization(s)

Check all authorizations that apply and fill in the blanks as provided.

Part I. Training and Experience

There are always multiple pathways provided for each training and experience section. Select the applicable one.

Item 1. Board Certification

The applicant or licensee may use this pathway if the proposed new authorized individual is certified by a board recognized by MDH. To confirm that MDH recognizes that boards certifications see NRC's web page <http://www.nrc.gov/materials/miau/med-use-toolkit.html>.

Note: An individual that is board eligible will not be considered for this pathway until the individual is actually board certified. Further, individuals holding other board certifications will also not be considered for this pathway.

The applicant or licensee will need to provide a copy of the board certification and other training, experience, or clinical casework as indicated on the specific form of the MDH Form 313 series.

All applicants under this pathway (except for 4731.4460 uses) must submit a completed Part II Preceptor Attestation.

Item 2. Current Authorized Individuals Seeking Additional Authorizations

Provide the information requested for training, experience, or clinical casework as indicated on the specific form of the MDH Form 313 series. (**Note:** This section does not include individuals who are authorized only on foreign licenses.)

All applicants under this pathway must submit a completed Part II Preceptor Attestation.

Item 3. Training and Experience for Proposed New Authorized Individuals

This pathway is used for those individuals not listed on the license as an authorized individual, who cannot meet requirements for the board certification pathway.

The proposed authorized individual is not required to receive the classroom and laboratory training, supervised work experience, or clinical casework at any one location or at one time, therefore space is provided to identify each location and date of training or experience. The date should be provided in the month/day/year format. The clock hours must be indicated for those individuals that must meet a minimum number of training and work experience hours. The specific number of hours needed for each training element will depend upon the type of approval sought.

Note: Classroom and Laboratory Training or Didactic Training may be provided at medical teaching/university institutions. In some cases, a course may be provided for that particular need and taught in consecutive days; in others, the period may be a semester or quarter as part of the formal curriculum. The required "structural educational programs" or "training" may be obtained in any number of settings, locations, and educational situations.

MDH expects that clinical laboratory hours credited toward meeting the requirements for classroom and laboratory training will involve training in radiation safety aspects of the medical use of byproduct material. MDH recognizes, for example, that physicians in training may not dedicate all of their clinical laboratory time specifically to the subject areas covered in these subparts and will be attending to other clinical matters involving the medical use of the material under the supervision of an AU (e.g., reviewing case histories or interpreting scans). However, those hours spent on other duties, not related to radiation

safety, should not be counted toward the minimum number of hours of required classroom and laboratory training in radiation safety.

This type of supervised work experience, even though not specifically required by the MDH, may be counted toward the supervised work experience to obtain the required total hours of training.

Similarly, the MDH recognizes that clinicians will not dedicate all of their time in training specifically to the subject areas described and will be attending to other clinical matters. The MDH will broadly interpret “classroom training” to include various types of instruction received by candidates for approval, including online training, as long as the subject matter relates to radiation safety and safe handling of byproduct material.

Note: If the proposed new authorized individual had more than one supervisor, provide the information requested for each supervising individual.

Part II. Preceptor Attestation

MDH defines the term “preceptor” to mean “an individual who provides, directs, or verifies training and experience required for an individual to become an authorized user, an authorized medical physicist, an authorized nuclear pharmacist, or a Radiation Safety Officer.” While the supervising individual for the work experience may also be the preceptor, the preceptor does not have to be the supervising individual as long as the preceptor directs or verifies the training and experience required. The preceptor must attest in writing regarding the training and experience of any individual to serve as an authorized individual and attest that the individual has satisfactorily completed the appropriate training and experience criteria and has achieved a level of competency or a level of radiation safety knowledge sufficient to function independently. This preceptor also has to meet specific requirements.

MDH may require supervised work experience conducted under the supervision of an authorized individual in a licensed material use program. In this case, a supervisor is an individual who provides frequent direction, instruction, and direct oversight of the student as the student completes the required work experience in the use of byproduct material.

Supervision may occur at various licensed facilities, from a large teaching university hospital to a small private practice.

MDH Form 313 series Part II - Preceptor Attestation pages have multiple sections. The preceptor must complete an attestation of the proposed user’s training, experience, and competency to function independently, as well as provide information concerning his/her own qualifications and sign the attestation. Because there are a number of different pathways to obtain the required training and experience for different authorized individuals, specific instructions are provided below for each MDH 313 series form.

Specific Instructions and Guidance for Completing MDH Form 313T (AUT)

Part I. Training and Experience - select one of the three methods below

Item 1. Board Certification

If you are a nuclear medicine physician, radiologist, or radiation oncologist with a board certification listed under 35.300 [4731.4440] on NRC’s website, which is located at <http://www.nrc.gov/materials/miau/med-use-toolkit.html>, provide the requested information, i.e., a copy of the board certification, documentation of supervised clinical experience (complete the table in section 3.c), and completed preceptor attestation. As indicated on the form, additional information is needed if the board certification or supervised clinical experience was greater than seven years ago.

List each supervising individual by name and include the license showing the supervising individual as an authorized user.

If you are a radiation oncologist whose board certification is not listed under 35.300 [4731.4440] on NRC's website, provide the requested information (i.e., a copy of the board certification listed under either 35.400 [4731.4450] or 35.600 [4731.4463] on NRC's website; documentation of training and supervised work experience with unsealed materials requiring a written directive (complete the tables in sections 3.a and 3.b); documentation of supervised clinical experience (complete the table in section 3.c); and completed preceptor attestation). As indicated on the form, additional information is needed if the board certification, training and supervised work experience or clinical experience was greater than seven years ago.

List each supervising individual by name and include the license showing the supervising individual as an authorized user.

Item 2. Current 4731.4440, 4731.4450, or 4731.4463 Authorized User Seeking Additional Authorization

Submit a completed section 2.a, listing the license number and the user's current authorizations.

If you are currently authorized for a subset of clinical uses in accordance with 4731.4440, submit the requested information, i.e., complete the table in section 3.c to document your new supervised clinical case experience and the completed preceptor attestation. As indicated on the form, additional information is needed if the clinical case experience was greater than seven years ago.

List each supervising individual by name and include the license showing the supervising individual as an authorized user.

If you are currently authorized in accordance with 4731.4458 or 4731.4479 and meet the requirements in 4731.4446, submit the requested information, i.e., documentation of training and supervised work experience with unsealed materials requiring a written directive (complete the tables in sections 3.a and 3.b); documentation of supervised clinical experience (complete the table in section 3.c); and completed preceptor attestation). As indicated on the form, additional information is needed if the training and supervised work experience or clinical experience was greater than seven years ago.

List each supervising individual by name and include the license showing the supervising individual as an authorized user.

Item 3. Training and Experience for Proposed Authorized Users

As indicated on the form, additional information is needed if the degree, training and/or work experience was completed more than seven years ago.

Submit a completed section 3.a.

Submit a completed section 3.b. List each supervising individual by name and include the license number showing the supervising individual as an authorized user.

Submit a completed section 3.c for each requested authorization. List each supervising individual by name and include the license number showing the supervising individual as an authorized user.

Submit a completed preceptor attestation in Part II.

Part II. Preceptor Attestation

The Preceptor Attestation page has five sections.

The attestations for training and experience requirements in 35.390, 4731.4444, and 4731.4445 are in the first section.

The attestation for supervised clinical experience is in the second section.

The attestations for competency to function independently as an authorized user for specific uses is in the third section.

The attestation for training and experience requirements and competency to function independently for radiation oncologist meeting the requirements in 4731.4446 is in the fourth section.

The fifth and final section requests specific information about the preceptor's authorization(s) to use licensed material in addition to the preceptor's signature.

There are seven possible categories of individuals seeking authorized user status under this form. Follow the instructions for the applicable category.

The preceptor for a proposed authorized user who is a nuclear medicine physician, radiologist, or radiation oncologist with a board certification listed in accordance with 35.390 [4731.4443] on NRC's website must complete the first, second, third, and fifth sections of this part.

The preceptor for a proposed authorized user for all the uses listed in 4731.4443 Subpart 1. Item B(1)(b)vi who is a radiation oncologist with a board certification that is not listed in accordance with 35.390 [4731.4443] on NRC's website must complete the first, second, third, and fifth sections of this part.

The preceptor for a proposed authorized user for 4731.4443 Subpart 1. Item B(1)(b)vi uses who is a radiation oncologist with a board certification listed under 35.490 [4731.4458] or 36.690 [4731.4479] on NRC's website must complete the fourth and fifth sections of this part.

The preceptor for an authorized user who is currently authorized for a subset of clinical uses in accordance with 4731.4440 must complete the second, third, and fifth sections of this part, except for an authorized user meeting the criteria in 4731.4444 seeking to meet the training and experience requirements in accordance with 4731.4445.

The preceptor for an authorized user meeting the criteria in 4731.4444 seeking to meet the training and experience requirements in accordance with 4731.4445 must complete the first, second, third, and fifth sections of this part.

The preceptor for an authorized user currently authorized in accordance with 4731.4458 or 4731.4479 and meeting the requirements in 4731.4446 must complete the fourth and fifth sections of this part.

The preceptor for a proposed new authorized user must complete the first, second, third and fifth sections of this part.