



Indiana University Health

May 16, 2025

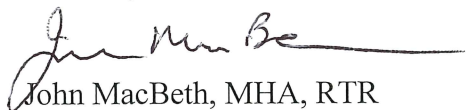
U. S. Nuclear Regulatory Commission
Materials Licensing Section
2056 Westings Ave, Suite 400
Naperville, IL 60563-2657

Dear Sir or Madam:

Indiana University Health Bloomington Hospital would like to amend its Byproduct Materials License, Number 13-10408-02, to change the Radiation Safety Officer from Patrick J. Byrne to Danielle Sargent, MHA, CNMT. Enclosed is Form NRC 313A(RSO) for Danielle Sargent.

If there are any questions concerning this license amendment, please feel free to contact me directly.

Sincerely,


John MacBeth, MHA, RTR
SCR Imaging Director

John MacBeth, MHA, RTR
SR Imaging Director
317.828.9800 (cell)
jmacbeth1@iuhealth.org

2651 E. Discovery Parkway
Bloomington, IN 47408

iuhealth.org



Indiana University Health

RSO / EXECUTIVE MANAGEMENT Delegation of Authority

May 16, 2025

Re: Radiation Safety Officer / Delegation of Authority

Mrs. Sargent:

You have been appointed the Radiation Safety Officer (RSO) of Indiana University Health Bloomington Hospital, USNRC materials license 13-10408-02. This "Delegation of Authority" is prepared to comply with Title 10 Code of Federal Regulations (CFR) Part 35.24(b). This section of the regulations requires that you agree in writing to the following:


- Assume responsibility for implementing the Radiation Protection Program
- Ensure that radiation safety activities are being performed in accordance with our own approved procedures and all regulatory requirements.

Furthermore, in compliance with 10 CFR 35.24(e),(g), the executive management of this facility agrees to provide you as RSO:

- Specific written notation of your authority, duties and responsibilities.
- Sufficient authority, organizational freedom, time, resources and management prerogative to:
 1. Identify radiation safety problems;
 2. Initiate, recommend, or provide corrective actions;
 3. Stop unsafe operations; and,
 4. Verify implementation of corrective actions.

Our signatures noted below will attest to the issues noted above. Please make a copy of this document for your files and return the original to my attention.

Sincerely,



John MacBeth, MHA, RT
SCR Imaging Director



Danielle Sargent, MHP, CNMT
Radiation Safety Officer

2651 E. Discovery Parkway
Bloomington, IN 47408



**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION
[10 CFR 35.57, 35.50]**

Estimated burden per response to comply with this mandatory collection request: 4.3 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Send comments regarding burden estimate to the FOIA, Library, and Information Collections Branch (T-6 A10M), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollections.Resource@nrc.gov, and the OMB Reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0120), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503; email: oira_submission@omb.eop.gov. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

Name of Individual

☒ RSO

☐ ARSO

Danielle Sargent

Requested Authorization(s) *The license authorizes the following medical uses (check all that apply):*

- ☒ 35.100 ☒ 35.200 ☒ 35.300 ☐ 35.400 ☐ 35.500 ☒ 35.600 (remote afterloader)
☐ 35.600 (teletherapy) ☐ 35.600 (gamma stereotactic radiosurgery) ☐ 35.1000 (_____)

**PART I -- TRAINING AND EXPERIENCE
(Select one of the five methods below)**

*Training and Experience, including board certification, must have been obtained within the 7 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. Provide 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. If the board certification process has been recognized by the Commission or an Agreement State under 10 CFR 35.50;
 - (i) Go to the table in 5c and describe training provider and dates of training for each type of use for which authorization is sought.
 - (ii) Stop here
- c. If the board certification was issued on or before October 24, 2005 and is listed in 10 CFR 35.57 (a)(2);
 - (i) Provide documentation demonstrating that the individual was using the requested materials and uses on or before October 24, 2005;
 - (ii) Stop here

OR

☐ **2. Current Radiation Safety Officer (RSO) or Associate Radiation Safety Officer (ARSO) Seeking Authorization to Be Recognized as a RSO or ARSO for the Additional Medical Uses Checked Above**

- a. Use the table in section 5.c. to describe training in radiation safety, regulatory issues, and emergency procedures for the additional types of medical use for which recognition as RSO or ARSO is sought.
- b. If board certified, provide a copy of the certificate and stop here.
- c. If not board certified and not listed on a medical use license as an RSO before January 14, 2019, skip to and complete Part II Preceptor Attestation.

OR

☐ **3. Authorized User (AU), Authorized Medical Physicist (AMP), or Authorized Nuclear Pharmacist (ANP) identified on a license or permit in accordance with 10 CFR 35.50 (c)(2)**

- a. Provide license number.
- b. Use the table in section 5.c. to describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license.
- c. Stop here.

OR

**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.57, 35.50] (continued)**

☐ **4. Individuals applying simultaneously to be the RSO and AU on a new license**

- ☐ a. Documentation of training and experience to be a new AU is attached
- ☐ b. The new license application is attached.
- c. Stop here.

OR

☒ **5. Structured Educational Program for Proposed RSO or ARSO**

a. Classroom and Laboratory Training

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation	Oregon State University	126	10/2019-12/2019 6/2020-9-2020
Radiation protection	Oregon State University	72	1/2022-3/2022
Mathematics pertaining to the use and measurement of radioactivity	Oregon State University	180	10/2019-3/2022
Radiation biology	Oregon State University	54	1/2020-3/2020
Radiation dosimetry	Oregon State University	126	4/2020-6/2020 1/2022-3/2022
Total Hours of Training:		558	

**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.57, 35.50] (continued)**

5. Structured Educational Program for Proposed RSO or ARSO (continued)

b. Supervised Radiation Safety Experience

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

Description of Experience	Location of Training/ License or Permit Number of Facility	Dates of Training*
Shipping, receiving, and performing related radiation surveys	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Using and performing checks for proper operation of instruments used to determine the activity of dosages, survey meters, and instruments used to measure radionuclides	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Securing and controlling byproduct material	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Using administrative controls to avoid mistakes in administration of byproduct material	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Using procedures to prevent or minimize radioactive contamination and using proper decontamination procedures	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Using emergency procedures to control byproduct material	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Disposing of byproduct material	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025
Licensed Material Used (e.g., 35.100, 35.200, etc.) ⁺ <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>	Indiana University Health Bloomington Hospital/ 13-10408-02	4/2019-4/2025

⁺ Choose all applicable sections of 10 CFR Part 35 to describe radioisotopes and quantities used: 35.100, 35.200, 35.300, 35.400, 35.500, 35.600 remote afterloader units, 35.600 teletherapy units, 35.600 gamma stereotactic radiosurgery units, emerging technologies (provide list of devices).

**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.57, 35.50] (continued)**

5. Structured Educational Program for Proposed RSO or ARSO (continued)

b. Supervised Radiation Safety Experience (continued)

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

Supervising Individual Patrick J. Byrne	License/Permit Number listing supervising individual as a Radiation Safety Officer or Associate Radiation Safety Officer Indiana University Health Bloomington Hospital/ 13-10408-02
<hr style="border-top: 1px dashed black;"/>	
The supervising individual is authorized as the for the following medical uses:	<input checked="" type="checkbox"/> Radiation Safety Officer or the <input type="checkbox"/> Associate Radiation Safety Officer
<input checked="" type="checkbox"/> 35.100 <input checked="" type="checkbox"/> 35.200 <input checked="" type="checkbox"/> 35.300 <input type="checkbox"/> 35.400	
<input type="checkbox"/> 35.500 <input checked="" type="checkbox"/> 35.600 (remote afterloader) <input type="checkbox"/> 35.600 (teletherapy)	
<input type="checkbox"/> 35.600 (gamma stereotactic radiosurgery) <input type="checkbox"/> 35.1000 (_____)	

c. Describe training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license for the RSO or types of use for which the ARSO will be listed on the license.

Description of Training	Training Provided By	Dates of Training*
Radiation safety, regulatory issues, and emergency procedures for 35.100, 35.200, and 35.500 uses	Patrick J. Byrne	5/15/2025
Radiation safety, regulatory issues, and emergency procedures for 35.300 uses	Patrick J. Byrne	5/15/2025
Radiation safety, regulatory issues, and emergency procedures for 35.400 uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - teletherapy uses		
Radiation safety, regulatory issues, and emergency procedures for 35.600 - remote afterloader uses	Patrick J. Byrne	5/15/2025
Radiation safety, regulatory issues, and emergency procedures for 35.600 - gamma stereotactic radiosurgery uses		
Radiation safety, regulatory issues, and emergency procedures for 35.1000, specify use(s):		

**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.57, 35.50] (continued)**

5. Structured Educational Program for Proposed RSO or ARSO (continued)

- c. Training in radiation safety, regulatory issues, and emergency procedures for all types of medical use on the license (continued)

Supervising Individual *If training was provided by supervising RSO, ARSO, AU, AMP, or ANP. (If more than one supervising individual is necessary to document supervised training, provide multiple copies of this page.)*

Patrick J Byrne

License/Permit Number listing supervising individual

Indiana University Health Bloomington Hospital/ 13-10408-02

License/Permit lists supervising individual as:

- ☒ Radiation Safety Officer ☐ Associate Radiation Safety Officer
☐ Authorized User ☐ Authorized Nuclear Pharmacist ☐ Authorized Medical Physicist

Authorized as RSO, ARSO, AU, ANP, or AMP for the following medical uses:

- ☒ 35.100 ☒ 35.200 ☒ 35.300 ☐ 35.400
☐ 35.500 ☒ 35.600 (remote afterloader) ☐ 35.600 (teletherapy)
☐ 35.600 (gamma stereotactic radiosurgery) ☐ 35.1000 (_____)

- d. Skip to and complete 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 training and experience required. If more than one preceptor is necessary to document experience, obtain a separate preceptor statement from each.

First Section

Structured Educational Program for Proposed RSO or ARSO

☒ I attest that Danielle Sargent has satisfactorily completed
Name of Proposed RSO/ARSO

a structural educational program consisting of both 200 hours of classroom and laboratory training and one year of full-time radiation safety experience as required by 10 CFR 35.50(b)(1).

AND

Second Section

☒ I attest that Danielle Sargent has training in
Name of Proposed RSO/ARSO

radiation safety, regulatory issues, and emergency procedures for the following types of use:

Check all that apply:

- ☒ 35.100 ☒ 35.200
☒ 35.300 oral administration of less than or equal to 33 millicuries of sodium iodide I-131, for which a written directive is required
☒ 35.300 oral administration of greater than 33 millicuries of sodium iodide I-131
☒ 35.300 Parenteral administration of any radioactive drug that contains a radionuclide that is primarily used for its electron emission, beta radiation characteristics, alpha radiation characteristics, or photon energy of less than 150 keV, for which a written directive is required

**RADIATION SAFETY OFFICER OR
ASSOCIATE RADIATION SAFETY OFFICER
TRAINING, EXPERIENCE AND PRECEPTOR ATTESTATION [10 CFR 35.57, 35.50] (continued)**

PART II – PRECEPTOR ATTESTATION (continued)

Check all *that apply*:

- ☐ 35.400
- ☐ 35.500
- ☒ 35.600 remote afterloader units
- ☐ 35.600 teletherapy units
- ☐ 35.600 gamma stereotactic radiosurgery units
- ☐ 35.1000 emerging technologies, including:

Third Section

AND

☒ I attest that

Danielle Sargent

Name of Proposed Radiation Safety Officer or Associate Radiation Safety Officer

is able to independently fulfill the radiation safety-related duties as:

☐ A Radiation Safety Officer for a medical use licensee.

OR

☐ An Associate Radiation Safety Officer for a medical use licensee.

Fourth Section

Complete the following for Preceptor Attestation and signature

☒ I am the Radiation Safety Officer for

☐ I am the Associate Radiation Safety Officer for

Name of Facility: Indiana University Health Bloomington Hospital

License/Permit Number: 13-10408-02

Name of Preceptor (Typed or printed)

Patrick J. Byrne

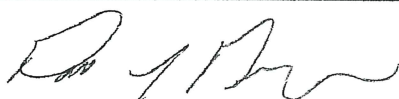
Telephone Number

(734) 717-8731

Date

05/16/2025

Signature



Martha Pavon

From: Tammy Tomczak
Sent: Thursday, June 5, 2025 7:24 AM
To: Martha Pavon
Cc: Sandy Pavon
Subject: FW: Documents for changing our RSO.
Attachments: Scan from Riley Bruce L (00A).pdf

Good morning, Martha 😊

Can you please add the attached to ADAMS?

Thank you!!
Tammy

-----Original Message-----

From: Riley, Bruce L <BRiley1@iuhealth.org>
Sent: Wednesday, June 4, 2025 8:43 AM
To: R3-DRSSMail Resource <R3-DRSSMail.Resource@nrc.gov>
Subject: [External_Sender] Documents for changing our RSO.

Here are the documents showing our change of our RSO. Please advise if you need any additional information.

Thank you.

BRUCE RILEY BSRT R
Radiology manager
Radiology and Non invasive Cardiology
2651 E. DISCOVERY PARKWAY
BLOOMINGTON, IN 47408
BRILEY1@IUHEALTH.ORG
812-918-3692