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REGION 1

U.S. Nuclear Regulatory Commission
Radioisotopes Licensing Division
Region I
475 Allendale Road
King Prussia, PA 19406-1415

Date: Jan 31, 2007

Dear Reviewer:

Subject: Amendment to NRC license #47-00404-02
Cabell Huntington Hospital, Inc.
Huntington, West Virginia.

03003370

We request amendment of license 47-00404-02 to add Nadia Yaqub, MD as an authorized user under 35.300.

Included with this cover letter is Nadia Yaqub's training in radiation physics and authorized user Bruce Chertow's preceptor attestation letter.

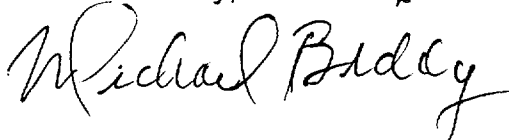
The Radiation Safety Committee has unanimously voted and approved Nadia Yaqub as a 35.300 user to our radioactive materials license (47-00404-02). Questions regarding this request may be directed to Fred Peatross (304-526-2079) or Michael Biddy, RSO (304-208-2508)

Regards,

Keith Biddle, Vice President



Michael Biddy, RSO



140029

NMCG/RGN MATERIALS-002

**AUTHORIZED USER TRAINING AND EXPERIENCE
AND PRECEPTOR ATTESTATION**
(for uses defined under 35.300)
[10 CFR 35.390, 35.392, 35.394, and 35.396]

APPROVED BY OMB: NO. 3150-0120
EXPIRES: 10/31/2008

Name of Proposed Authorized User

State or Territory Where Licensed

Nadia Yaqub MD

West Virginia

Requested Authorization(s) (check all that apply):

35.300 Use of unsealed byproduct material for which a written directive is required

OR

35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)

35.300 Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)

35.300 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

35.300 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 the 7 years preceding the date of application or the individual must have 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. For 35.390, provide documentation on supervised clinical case experience. The table in section 3.c. may be used to document this experience.
- c. For 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 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 35.300, 35.400, or 35.600 Authorized User Seeking Additional Authorization

a. Authorized User on Materials License _____ under the requirements below or equivalent Agreement State requirements (check all that apply):

35.390 35.392 35.394 35.490 35.690

b. If currently authorized for a subset of clinical uses under 35.300, provide documentation on additional required supervised case experience. The table in section 3.c. may be used to document this experience. Also provide completed Part II Preceptor Attestation.

c. If currently authorized under 35.490 or 35.690 and requesting authorization for 35.396, provide documentation on classroom and laboratory training, supervised work experience, and supervised clinical case experience. The tables in sections 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 35.390 35.392 35.394 35.396

Description of Training	Location of Training	Clock Hours	Dates of Training*
Radiation physics and instrumentation	AMERICAN ASSOCIATION OF CLINICAL ENDOCRINOLOGISTS	} 80 HOURS	Oct 11
Radiation protection	NUCLEAR COURSE OCT 11 - 18 2003		to
Mathematics pertaining to the use and measurement of radioactivity	KANSAS CITY, MO		Oct 18 2003
Chemistry of byproduct material for medical use	Also continued to have lectures in our department		
Radiation biology	every Tuesday morning		
Total Hours of Training:		80 hours	

- b. Supervised Work Experience 35.390 35.392 35.394 35.396

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

Description of Experience	Location of Experience/License or Permit Number of Facility	Clock Hours	Dates of Experience*
Ordering, receiving, and unpacking radioactive materials safely and performing the related radiation surveys	CHH & St Mary's also in the AACE Nuclear course Kansas City, MO	} Monday AM 8AM - 11AM from July 2002 to December 2002	July 2002
Performing quality control procedures on instruments used to determine the activity of dosages and performing checks for proper operation of survey meters	Cabel Hospital for Hospital & St Mary's Medical Center		to present
Calculating, measuring, and safely preparing patient or human research subject dosages	CHH & St Mary's		Monday 8AM - 11AM July 2003
Using administrative controls to prevent a medical event involving the use of unsealed byproduct material	CHH & St Mary's		- Dec 2003
Using procedures to contain spilled byproduct material safely and using proper decontamination procedures	CHH & St Mary's		
Total Hours of Supervised Work Experience:		~ 156 hours	

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 BRUCE CHERTOW MD	License/Permit Number listing supervising individual as an authorized user 47-00404-02
Supervising individual meets the requirements below, or equivalent Agreement State requirements (check all that apply)**:	
<input checked="" type="checkbox"/> 35.390	With experience administering dosages of:
<input checked="" type="checkbox"/> 35.392	<input checked="" type="checkbox"/> Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
<input checked="" type="checkbox"/> 35.394	<input checked="" type="checkbox"/> Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
<input type="checkbox"/> 35.396	<input type="checkbox"/> Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
	<input checked="" type="checkbox"/> Parenteral administration of any other radionuclide requiring a written directive
** 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/License or Permit Number of Facility	Dates of Experience*
Oral administration of sodium iodide I-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)	> 6 cases	CHH & St Mary's	July 2002 October 2004
Oral administration of sodium iodide I-131 requiring a written directive in quantities greater than 1.22 gigabecquerels (33 millicuries)	> 10 cases	CHH & St Mary's hospital	July 2002 - October 2004.
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	-		
_____ (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/Permit Number listing supervising individual as an authorized user
Supervising individual meets the requirements below, or equivalent Agreement State requirements (<i>check all that apply</i>)**:	
<input type="checkbox"/> 35.390	With experience administering dosages of:
<input checked="" type="checkbox"/> 35.392	<input checked="" type="checkbox"/> Oral NaI-131 requiring a written directive in quantities less than or equal to 1.22 gigabecquerels (33 millicuries)
<input checked="" type="checkbox"/> 35.394	<input checked="" type="checkbox"/> Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)
<input type="checkbox"/> 35.396	<input type="checkbox"/> Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required
	<input type="checkbox"/> Parenteral administration of any other radionuclide requiring a written directive
** 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 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 35.390:

Board Certification

I attest that _____ has satisfactorily completed the training and experience requirements in 35.390(a)(1).
Name of Proposed Authorized User

OR

Training and Experience

I attest that _____ has satisfactorily completed the 700 hours of training and experience, including a minimum of 200 hours of classroom and laboratory training, as required by 10 CFR 35.390 (b)(1).
Name of Proposed Authorized User

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Preceptor Attestation (continued)

First Section (continued)

For 35.392 (Identical Attestation Statement Regardless of Training and Experience Pathway):

I attest that Nadia Yagub MD has satisfactorily completed the 80 hours of classroom
Name of Proposed Authorized User

and laboratory training, as required by 10 CFR 35.392(c)(1), and the supervised work and clinical case experience required in 35.392(c)(2).

For 35.394 (Identical Attestation Statement Regardless of Training and Experience Pathway):

I attest that Nadia Yagub MD has satisfactorily completed the 80 hours of classroom
Name of Proposed Authorized User

and laboratory training, as required by 10 CFR 35.394 (c)(1), and the supervised work and clinical case experience required in 35.394(c)(2).

Second Section

I attest that NADIA Yagub MD has satisfactorily completed the required clinical case
Name of Proposed Authorized User

experience required in 35.390(b)(1)(ii)G listed below:

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

Third Section

I attest that Nadia Yagub has satisfactorily achieved a level of competency to
Name of Proposed Authorized User

function independently as an authorized user for:

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

AUTHORIZED USER TRAINING AND EXPERIENCE AND PRECEPTOR ATTESTATION (continued)

Fourth Section

For 35.396:

Current 35.490 or 35.690 authorized user:

I attest that _____ is an authorized user under 10 CFR 35.490 or 35.690
Name of Proposed Authorized User

or equivalent Agreement State requirements, has satisfactorily completed the 80 hours of classroom and laboratory training, as required by 10 CFR 35.396 (d)(1), and the supervised work and clinical case experience required by 35.396(d)(2), and has achieved a level of competency sufficient to function independently as an authorized user for:

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

OR

Board Certification:

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

requirements of 35.396(c), has satisfactorily completed the 80 hours of classroom and laboratory training required by 10 CFR 35.396 (d)(1) and the supervised work and clinical case experience required by 35.396(d)(2), and has achieved a level of competency sufficient to function independently as an authorized user for:

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

Fifth Section

Complete the following for preceptor attestation and signature:

I meet the requirements below, or equivalent Agreement State requirements, as an authorized user for:

35.390 35.392 35.394 35.396

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 1.22 gigabecquerels (33 millicuries)

Oral NaI-131 in quantities greater than 1.22 gigabecquerels (33 millicuries)

Parenteral administration of beta-emitter, or photon-emitting radionuclide with a photon energy less than 150 keV requiring a written directive is required

Parenteral administration of any other radionuclide requiring a written directive

Name of Preceptor	Signature	Telephone Number	Date
BRUCE CHERTOW MD	Bruce Chertow MD	304 691 1095	1/22/07
License/Permit Number/Facility Name			

Course Syllabus

Radiation Physics for Endocrinologists

DAY ONE

Saturday, October 11, 2003

7:00 am	Registration
7:15	Introduction AACE Representative
7:30	Course Information Greg Wegst, M.A
8:00	Matter and Atomic Structure Audrey Wegst, PhD
8:20	Alpha, Beta, Gamma Emissions, Internal Conversion Audrey Wegst, PhD
8:45	Coffee Break
9:00	Logarithmic Review Larry Cook, PhD
10:00	Radioactivity and Decay Audrey Wegst, PhD
11:00	Decay Schemes: I-131, I-123, I-125, Tc-99m Audrey Wegst, PhD
11:30	Units of Measurement Jay Spicer, M.S.
12:00	Lunch--Radiation Safety Video and Discussion
1:00 pm	Production of Radioisotopes Jay Spicer, M.S.
02:00	Specific Activity Jay Spicer, M.S.
03:30	END

DAY TWO

Sunday, October 12, 2003

7:30am Quiz
7:45 Interaction of Particles and Photons with Matter
Audrey Wegst, PhD
9:30 Coffee Break
9:45 Units of Radiation Dose
Ben Friesen, PhD
11:30 Radiation Detectors:
Gas filled detectors
Ionization Chambers
Dosimeters
Survey Meters
Dose Calibrators
Accuracy
Geometry
Linearity
Consistency
GM Counters
Wipe Test Counters
Survey Meters
Audrey Wegst, PhD
12:00 Lunch—Radiation Safety Video and Discussion
1:00 Radiation Detectors (continued)
2:15 Counting Statistics
Larry Cook, PhD
3:45 Coffee Break
4:00 Radioactive Sources, Standards
Audrey Wegst, PhD
4:30 Counting Efficiency, Minimum Detectable
Activity, Background
Larry Cook, PhD
5:30 Demonstration of:
Counting Efficiency
Background Determination
6:30 END

DAY THREE

Monday, October 13, 2003
8:00am Quiz
8:20 Demonstration in the Use of Survey Meters
9:15 Thyroid Physiology and Imaging
Woody Sistruck, M.D.
10:00 Coffee Break
12:00pm Lunch-Radiation Safety Video and Discussion
1:00 Scintillation Detectors
Audrey Wegst, Ph.D.
2:15 Pulse Height Analysis
Audrey Wegst, Ph.D.
3:00 Coffee Break
3:15 Instruments Using Scintillation Detectors
Thyroid Probes
Well Counters
Survey Meters
Gamma Cameras
P.E.T.
Audrey Wegst, PhD
5:30 Demonstration:
Dose Calibrator Tests
6:30 END

DAY FOUR

Tuesday, October 14, 2003
8:00 am Review
8:30 Quiz
9:15 Radiation Biology I
Ben Friesen, PhD
10:00 Coffee Break
11:00 Thyroid Uptakes
Joel McAllister, MS
12:00 pm Lunch-Radiation Safety Video and Discussion
1:00 Thyroid Uptake Pitfalls
Audrey Wegst, Phd
2:00 Demonstrations and Lab
Well Counter
Pulse Height Spectra
Thyroid Uptake
Thyroid Assay
Sample Counting
ALARA
6:00 END

DAY FIVE

Wednesday, October 15, 2003

8:00 am Review
8:30 Quiz
9:15 Radiation Biology II
Ben Friesen, PhD
10:00 Coffee Break
10:15 Radiation Biology III
Ben Friesen, PhD
12:00 pm Lunch-Radiation Safety Video and Discussion
1:00 Radiation Dosimetry:
External
Internal
Ben Friesen, PhD
2:00 Protection from External Sources of Radiation:
Time, Distance, Shielding
Audrey Wegst, Ph.D.
3:00 Coffee Break
03:15 Required Monitoring for External Radiation
Airborne, Surface and Skin
Audrey Wegst, PhD
3:45 Protection from Internal Contamination
Audrey Wegst, PhD
Monitoring for Internal Contamination
Thyroid Bioassays
Audrey Wegst, PhD
Demonstration of Monitoring
Area Surveys
Wipe Test Surveys
Spill Procedures
6:00 END

DAY SIX

Thursday, October 16, 2003

8:00 am Quiz
8:30 Tracer Kinetics
Jay Spicer, M.S.
9:30 Thyroid Treatment and Calculation of Dose
Jay Spicer, M.S.
10:15 Coffee Break
10:30 Measurement of Dose and Proper Records
Audrey Wegst, PhD
11:30 Demonstration of Proper Administration of Dose
12:00 pm Lunch-Radiation Safety Video and Discussion
1:00 Example Problems
Larry Cook, PhD
2:00 Regulatory Agencies and Agreement States
Audrey Wegst, PhD
3:00 Coffee Break
3:15 Review of Iodine Chemistry

This is to acknowledge the receipt of your letter/application dated

1/31/2007, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 47-0040-02
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 140029.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.