

February 5, 2002

ALL AGREEMENT STATES  
MINNESOTA, PENNSYLVANIA, WISCONSIN

**TRAINING COURSE INFORMATION: ACCEPTANCE TO THE DIAGNOSTIC  
AND THERAPEUTIC NUCLEAR MEDICINE COURSE (H-304) (STP-02-010)**

Enclosure 1 is the list of students from the States selected to attend the March 4-8, 2002, Diagnostic and Therapeutic Nuclear Medicine Course (H-304). Please provide the list of students and the travel instructions (Enclosure 2) to each individual from your program that is on the list. States with students attending this course have agreed to pay travel expenses and where designated the tuition. To cover the tuition expense, each State should submit a purchase order or equivalent document, to the U.S. Nuclear Regulatory Commission, to the following address:

Nuclear Regulatory Commission  
Office of the Chief Financial Officer  
Attn: Leah P. Tremper  
Mail Stop T9E10  
Washington, DC 20555

The NRC will, in turn, issue you a bill (invoice). If for any reason your attendee is unable to attend, please submit to us a written purchase order, or equivalent to cancel, prior to the starting date of the course.

To assist us and other States, and to help ensure that States with candidates on waiting lists will have an opportunity to fill vacated slots that may open up after our course acceptance letters have been sent to you, we ask that you inform us of any cancellations 30 days prior to the course starting date.

If you have any questions regarding this correspondence, please contact me or the individual named below.

POINT OF CONTACT:	Brenda G. Usilton	INTERNET:	BGU@NRC.GOV
TELEPHONE	(301) 415-2348	FAX	(301) 415-3502

**/RA/**

Josephine M. Piccone, Deputy Director  
Office of State and Tribal Programs

Enclosures:  
As stated

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DIAGNOSTIC AND THERAPEUTIC NUCLEAR MEDICINE COURSE (H-304)  
MARCH 4-8, 2002  
HOUSTON, TX

STATE	PARTICIPANT(S)	PAYING TUITION/ SPACE AVAILABLE
<b>ALABAMA</b>  Office of Radiation Control The Alabama Department of Public Health 201 Monroe Street, P.O. Box 303017 Montgomery, AL 36130-3017	1. Bridget Stephens	1. Paying Tuition
<b>ARKANSAS</b>  Division of Radiation Control and Emergency Management Arkansas Department of Health 4815 West Markham Street, Slot 30 Little Rock, AR 72205-3867	1. Melinda Davis	1. Paying Tuition
<b>LOUISIANA</b>  Radiation Protection Division Environmental Assistance Division Office of Environmental Services 7220 Bluebonnet Road, P.O. Box 82135 Baton Rouge, LA 70884-2135	1. Kitty Hebert Jacob	1. Space Available
<b>TEXAS - BRC</b>  Bureau of Radiation Control Texas Department of Health 1100 West 49th Street Austin, TX 78756-3189	1. William Glen Corbin	1. Paying Tuition
<b>WISCONSIN</b>  Radiation Protection Section Division of Public Health Dept of Health & Family Services P.O. Box 2659 Madison, WI 53701-2659	1. Leola DeKock	1. Space available

## INSTRUCTIONS TO STUDENTS

**ACCEPTANCE:** This is to advise you that those individuals in Enclosure 1 have been accepted for participation in the training course (H-304), "Diagnostic and Therapeutic Nuclear Medicine." This course is scheduled to be presented March 4-8, 2002 at the Advanced Health Education Center (AHEC), 8502 Tybor Street, Houston, Texas 77074, Telephone: (713) 772-0157 or 1-800-239-1361.

**COURSE:** The course will be conducted beginning at 8:00 a.m. and end at 5:00 p.m. each day except for Friday, March 8, 2002, which will end at 3:00 p.m. **Please refer to AHEC's Web page at URL: <http://www.AHECOnline.com> for hotel information and transportation between the hotel and the AHEC. Click on General Information.** An tentative outline for the course (Enclosure 3) is attached.

**LODGING:** You should plan to arrive on Sunday March 3, 2002 and depart on Friday, March 8, 2002. Some hotels offer transportation to and from the AHEC. Participants must make their own lodging and travel arrangements. Individuals should request a State or government employee rate at the hotel.

### **Meals/Restaurants (Houston/AHEC Classes)**

There are multiple eating facilities within walking distance, such as Subway, Chinese Buffet, and Denny's. If you have a car, the possibilities are many. If it rains, AHEC has a small lunch area and you can order and have sandwiches or pizza delivered.

### **Ground Transportation from Airports to Houston Hotels**

Airport Express, services ground transportation to and from both Intercontinental and Hobby airports. Buses depart every 30 minutes for designated terminals and will take you to the Galleria where you should call a cab to deliver you to your hotel. Call 713-523-5695 or 713-523-8888 for Airport Express Information.

**Cab fare** is approximately \$40 from Hobby Airport and \$60 from Intercontinental to hotels in your area. Bus fare is \$10 - \$20. Airport Express Ticket Agent is located in baggage claim area.

Call 713-236-1111 for Yellow Cab Company. If you call a cab service, **establish the rates prior to engaging the taxi.** **Parking:** Parking in Houston is on surface lots and is free of charge.

**Diagnostic and Therapeutic Nuclear Medicine Course  
Tentative Outline (March 4-8, 2002)**

- I. Introduction
  - A. Course Overview
  - B. Fundamentals of Nuclear Medicine Technology and Techniques
  - C. Terminology
- II. Counting Equipment
  - A. Principles of Operation
  - B. Components
  - C. Equipment
  - D. Quality Control
- III. Radiopharmacy Equipment
  - A. Dose Calibrator
  - B. Alarm Rate Meter
- IV. Imaging Equipment
  - A. Principles of Operation
  - B. Components
  - C. Cameras
  - D. Quality Control
- V. Radiation Safety Equipment
  - A. Radiation Contamination and Dose Monitoring Devices
  - B. Occupational Dose Monitoring Devices
- VI. Clinical Radiation Safety Concerns
  - A. Annual Dose Limits
  - B. ALARA
  - C. Ambient Surveys and Removable Contamination Wipe Test
  - D. Radiation Signs and Posting
  - E. Receipt of RAM Shipments and Security
  - F. Disposal of Low-level Radioactive Waste
  - G. Radiation Accidents and Decontamination
  - H. Time, Distance, and Shielding
  - I. Xenon room specification and evacuation times
  - J. Radiation Safety Program
  - K. Problem Solving
- VII. Patient Procedures in Nuclear Medicine
  - A. Diagnostic Procedures
  - B. Therapeutic Procedures
  - C. Indications
  - D. Acquisition or Delivery Techniques
- IX. Overview of Nuclear Pharmacy
  - A. Design and Daily Operations of a Nuclear Pharmacy
  - B. Characteristics of Diagnostic and Therapeutic Radiopharmaceuticals
  - C. Related Terminology
- X. Radiopharmaceutical Production and Dose Calculations
  - A. Reactors
  - B. Accelerators
  - C. Generators
  - D. Dose Calculations
- XI. Radiopharmaceutical Characteristics
  - A. Specific Radiopharmaceuticals
  - B. Clinical Use
  - C. Physical Half-life and Energies
  - D. General Information
- XII. Radiopharmaceutical Quality Control
  - A. Radionuclidic Purity
  - B. Chemical Purity
  - C. Radiochemical Purity
  - D. Particle Size
- XIII. Update: New Procedures in Nuclear Medicine
  - A. Monoclonal Antibodies
  - B. Breast Scintigraphy
  - C. New Pain Agents
  - D. New Radiopharmaceuticals Used in Therapy
- XIV. Radiation Biology
  - A. Effects of Ionization
  - B. Radiosensitive and Radioresistant Organs
  - C. Prenatal Radiation Exposure to Occupational Workers
  - D. Risk Versus Benefits of Medical Use of Radiation
- XV. Nuclear Medicine Facilities
  - A. Department Personnel and Management Structure
  - B. Department Layout
  - C. Positron Emission Tomography Imaging
- XVI. Misadministration/Accidents/Incidents
- XVII. Course Review and Examination
  - A. Course Review
  - B. Examination
  - C. Exam Critique