

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001

(FSME-14-094, October, Training, H-123)

October 2, 2014

ALL AGREEMENT STATES

ACCEPTANCE TO INTERMEDIATE HEALTH PHYSICS (H-123) (FSME-14-094)

Purpose: To provide the list of students selected for the U.S. Nuclear Regulatory Commission's (NRC) Intermediate Health Physics (H-123) course.

Background: The NRC provides the list of students and instructions to the States to help ensure that States with candidates on waiting lists will have an opportunity to fill vacated slots that may open up after this notification letter has been sent.

Discussion: Enclosure 1 is the list of students from the States selected to attend the November 17 - 21, 2014, Intermediate Health Physics (H-123) course (This course was previously known as "Fundamental Health Physics III (H-123)") in Oak Ridge, Tennessee. Please provide this document to each accepted individual from your program. Students attending this course will be paid travel and per diem by the NRC. Students must be U.S. citizens to be granted access to the Oak Ridge training site. Foreign students without citizenship must contact Kristy Mashburn at Kristy.Mashburn@orau.org for guidance. Please inform us of any cancellations immediately so that individuals on the waiting list have an opportunity to attend.

If you have any questions regarding this correspondence, please contact me at 301-415-3340 or the individual named below:

POINT OF CONTACT: Marcia Casby INTERNET: AStrainingandtravel.Resource@nrc.gov TELEPHONE: (301) 415-6525

/RA Duncan White for/

Laura A. Dudes, Director
Division of Materials Safety and State Agreements
Office of Federal and State Materials
and Environmental Management Programs

Enclosures:

- 1. List of Students
- 2. Instructions for Students
- 3. Tentative Schedule
- 4. Student Information Packet

Intermediate Health Physics (H-123) November 17-21, 2014 Oak Ridge, TN

STATE	PARTICIPANTS
Colorado	Michael Cosby
Florida	John Williamson Leo Bakersmith
Georgia	Daren Houchin
Illinois	Adam Ekstedt Cheryl Head
Kentucky	Anjan Bhattacharyya
Massachusetts	Medwell Hill
Nevada	Karen Deibert
Pennsylvania	Denise Bleiler Benjamin Seiber Gerald Horvath
Tennessee	Trevor Jackson

INSTRUCTIONS TO STUDENTS

<u>ACCEPTANCE</u>: This is to advise you that the individuals listed in Enclosure 1 have been accepted for participation in the Intermediate Health Physics (H-123) course. This course is scheduled to be presented November 17-21, 2014, at the Oak Ridge Institute for Science and Education (ORISE) training center at 1299 Bethel Valley Road, Building SC-1, Annex, Oak Ridge, Tennessee 37830. Each student must be a U.S. citizen to have access to the Oak Ridge training site. Foreign students must contact Ms. Kristy Mashburn, Kristy.Mashburn@orau.org, immediately for guidance.

<u>COURSE</u>: The course starts at 8:00 a.m. on Monday, November 17, 2014, and will end at approximately 4:00 p.m. on Friday, November 21, 2014. Also enclosed is a Student Information Packet provided by ORISE (Enclosure 4).

LODGING AND TRAVEL: Please plan to arrive on Sunday, November 16, 2014, and depart on Friday, November 21, 2014. You may elect to depart on Saturday, November 21 if you are unable to reserve a flight which would bring you home before midnight on Friday. Students must make their own lodging and travel arrangements. If traveling by air, please contact Carlson Travel at 1-800-453-8396 for airline reservations, and indicate that the travel is "Invitational" for the NRC. Complete the Travel Application Form located at http://nrc-stp.ornl.gov/training.html and submit to Marcia Casby (AStrainingandtravel.Resource@nrc.gov) at your earliest opportunity, but no later than October 20. If you have any questions regarding the travel form, please contact Marcia Casby at 301-415-6525. Individuals should request the Federal government rate when making hotel reservations. The per diem for Oak Ridge, Tennessee is 84/46/130. This means that lodging/meals/not to exceed the total. Rental cars are not authorized for travel. Students will be reimbursed for transportation between the airport and hotel, and between the hotel and the training center. Students staying at the same hotel are encouraged to coordinate with each other to arrange transportation between the hotel and the training center. If you plan to drive, the Federal mileage reimbursement is 56 cents per mile.

<u>DIRECT DEPOSIT:</u> We are very pleased to be offering Direct Deposit for travel reimbursements. If you prefer this method, please complete the form located on our website and link provided here, Direct Deposit Form. Follow the instructions on the form, and return to Mary Matheson at Mary.Matheson@nrc.gov. Once you have signed up for Direct Deposit, you are in the system and will not need to complete a new form unless your banking information changes. When it is time to complete your voucher for reimbursement, in the address box enter "Enrolled for Direct Deposit." If you have any questions regarding direct deposit, please contact Mary Matheson at 301-415-8748.

INTERMEDIATE HEALTH PHYSICS (H-123)

DATE TIME TOPIC

Monday 8:00 AM Welcome and Registration

9:00 AM GAMMA SPECTROSCOPY OVERVIEW 10:30 AM GAMMA SPECTRUM FEATURES

12:00 PM Lunch

1:00 PM Lab: Gamma-Ray Spectroscopy I (SD-210, 211, 213)

2:45 PM Lab: Low Energy Spectral Features (SD-257)

Tuesday 8:00 AM SEMICONDUCTOR DETECTORS

9:30 AM GAMMA SPECTROMETRY – QUANTITATIVE ANALYSIS

11:30 AM Lunch

12:30 PM Lab: High Resolution Gamma-Ray Spectroscopy

(GE-210, 211, 213)

2:00 PM Demo: Well Counter Demonstration (SD-258) 2:30 PM Lab: High Energy Spectral Features (SD-251)

Wednesday 8:00 AM Lab: High Resolution Gamma-Ray Spectrometry (SD-260)

9:30 AM Lab: Quantitative Analysis (GE-215)

12:00 PM Lunch

1:00 PM Problem Session

2:00 PM X-RAY FLUORESCENCE

2:30 PM Lab: A) X-ray Fluorescence (XRF-200, 214)

Lab: B) Portable Gamma Spectroscopy Systems (SD-300)

3:30 PM Lab: B) X-ray Fluorescence (XRF-200, 214)

Lab: A) Portable Gamma Spectroscopy Systems (SD-300)

Thursday 8:00 AM Lab: A) BF3 Detectors (N-100, 101, 102, 103, 106)

Lab: B) Alpha Spectroscopy (APS-100, 101, 102, 103)

9:50 AM Lab: B) BF₃ Detectors (N-100, 101, 102, 103, 106) Lab: A) Alpha Spectroscopy (APS-100, 101, 102, 103) 12:00

PM Lunch

1:00 PM NEUTRON SOURCES

2:00 PM INTERACTIONS OF NEUTRONS WITH MATTER

3:00 PM NEUTRON DETECTORS

Friday 8:00 AM NEUTRON ACTIVATION AND ACTIVATION ANALYSIS

9:15 AM Lab: A) Neutron Activation Analysis (NAA-103.3) Lab:

B) Neutron Survey Meter Calibration and Bonner

Spheres (N-108)

10:15 AM Lab: B) Neutron Activation Analysis (NAA-103.3) Lab:

A) Neutron Survey Meter Calibration and Bonner

Spheres (N-108)

11:15 AM Lab: Neutron Fluence Rate Measurements (NAA-104)

12:15 PM Lunch

1:15 PM Problem Session

1:45 PM ACCELERATORS

3:00 PM Exam

4:00 PM Course Critique and Adjourn



Greetings,

On behalf of Professional Training Programs' we are pleased to have you registered for our upcoming training course! The course will be held in Room 135 of the Oak Ridge Institute for Science and Education (ORISE) building at 1299 Bethel Valley Road, Oak Ridge, Tennessee. The enclosed directions and map of Oak Ridge should help you find our facility. (Note: Please follow the directions we have provided, GPS is not exact and will take you to the ORNL guard gate.)

Be sure to enter the building via the closest entrance to the intersection of Bethel Valley Road and Pumphouse Rd./Scarboro Rd. It is on the northwest corner of the building facing Bethel Valley Rd. On the detailed map, the building entrance is shown.

Please be prepared to show ID the first day of the course for identity purposes (driver's license, federal or state issued badge, etc). The course will start at 8:00 a.m. There will be someone at the front entrance to check you in beginning at 7:30 a.m.

ORISE is a Department of Energy (DOE) facility, so we are subject to DOE requirements. There are special briefing and badging requirements for Foreign National Participants. If you are not a U.S. Citizen, please contact me immediately.

We will supply you with course notebooks, notebook paper, pencils, etc. You should bring a calculator with exponential functions and be familiar with its use.

Fundamental Health Physics III course participants: Please bring the following reference materials you received while attending the Fundamental Health Physics I and II course:

- 1. 17th Edition Chart of the Nuclides
- 2. Radioactive Decay Data Tables
- 3. Radiological Health Handbook
- 4. Nuclide ID Gamma Catalog

If you have any questions about the course, please contact me at Kristy.Mashburn@orau.org or 865-576-3576 or Karen Moore at Karen.Moore@orau.org at 865-576-6408. We look forward to meeting you!

Kristy Mashburn, Registrar

Oak Ridge Associated Universities (ORAU)

Independent Environmental Assessment and Verification (IEAV)

GENERAL INFORMATION

<u>Check-In</u> will be in the PTP classroom (Room 135) between 7:30 - 8:00 a.m. We ask that you do not arrive before 7:30 a.m. Class will start promptly at 8:00 a.m. There will be a PTP staff member to greet you at the front door of the building. Please be prepared to show photo identification (driver's license, ID badge, etc.). **Please note:** If you are a non U.S. Citizen, please contact the Registrar immediately. You are required to bring your original U.S. VISA, Passport, and Driver's license on the first day of the course to verify identify.

You may have <u>mail</u> sent to you at the following address: Your name, Course Participant, Course Title (optional), Professional Training Programs, Oak Ridge Associated Universities, P.O. Box 117, MS-11, Oak Ridge, TN 37831-0117. Incoming mail service is available twice daily. <u>NOTE:</u> Since we will be providing you with course notebooks and materials, you may want to allow room in your suitcases for these resources. If you prefer to ship these notebooks and handouts, boxes will be provided.

DIRECTIONS

Oak Ridge is approximately 20 miles west-northwest of Knoxville, Tennessee. The course will be held at the Oak Ridge Institute for Science and Education (ORISE) Professional Training Programs (PTP) training facility located at 1299 Bethel Valley Road. *GPS takes you to another facility so please do not rely on it for correct directions.*

Directions for Automobile Travel to Oak Ridge:

<u>Heading east on I-40</u> (e.g., from Nashville), take Exit 356 onto Gallaher Road (State Route 58). This exit is just east of Kingston. Eventually, Gallaher Road will become the Oak Ridge Turnpike (State Route 95).

Heading south on I-75 (e.g., from Lexington), take Exit 122 from I-75 and head west on State Route 61 towards Clinton. Oak Ridge is approximately ten miles west of Clinton. Just before it reaches Oak Ridge, Route 61 effectively becomes the Oak Ridge Turnpike (State Route 95). Heading west on I-40/75 (e.g., from Knoxville) take Exit 376A onto State Route 162 (aka Pellissippi Parkway) into Oak Ridge. See directions from Airport for additional information. Heading north on I-75 (e.g., from Chattanooga), you have two options. The first is to take Exit 364 onto State Route 95 which will eventually become the Oak Ridge Turnpike. Sections of 95 have lots of tight curves so be careful. The other option is to continue on I-75 and take Exit 376 onto State Route 162 (aka Pellissippi Parkway) into Oak Ridge. See directions from Airport for additional information.

Directions from Airport Directly to Training Facility:

- 1. After you have crossed the bridge over the river and are next to the cemetery, you will see a sign that says "Bethel Valley Rd. Closed to through traffic." That is the road that you want to take. Bear right onto Bethel Valley Road.
- The training center will be on the left at the first intersection that you come to: the intersection
 of Bethel Valley Road and Pumphouse Rd. (to the left) and Scarboro Rd. (to the right). Turn
 left onto Pumphouse Road. There will be two entrances immediately on the left into the
 parking lot.
- 3. IMPORTANT: To enter the facility; walk around to the front of the building. The building entrance that you must use is the one facing Bethel Valley Road closest to the intersection. Someone should be there to let you in. See attached photo. DO NOT USE ANY OTHER BUILDING ENTRANCE!

Directions from Airport to Oak Ridge:

- 1. From airport, take Alcoa Highway (US 129 North) toward Knoxville for approximately 2.5 miles.
- 2. Take the OAK RIDGE exit to the right onto I-140.
- 3. Continue on I-140 for approximately 11.5 miles. You will cross interstate I-40/I-75. As you cross the interstate, watch for the Oak Ridge sign telling you to bear left. This takes you onto Route 162, better known as the Pellissippi Parkway.
- 4. In about 6 miles, you will go through the small Solway community that primarily consists of gas stations. Continue over the Clinch River/Solway Bridge (bearing left), and past a local cemetery that will be on the right.
- 5. Once past the cemetery, bear left at the sign indicating the approach into Oak Ridge. In a mile or so, this will take you onto South Illinois Avenue. Most of the Oak Ridge hotels are located on South Illinois.

Directions from Oak Ridge to Training Facility:

- 1. Proceed south on South Illinois as if you were leaving Oak Ridge and going towards Knoxville or the Airport.
- Bear right at the first intersection after McDonalds. You will now be heading south on Scarboro Road. Stay in the left lane since you do not want to be forced to turn right into the Y-12 Plant.
- 3. In approximately one mile you will come to the intersection with Bethel Valley Road (Knoxville is to the left and Oak Ridge National Laboratory is to the right). The training facility is on the south east corner of the intersection.
- 4. Go straight through the intersection onto Pumphouse Road. There will be two entrances immediately on the left into the parking lot.

IMPORTANT: To enter the facility; walk around to the front of the building. The building entrance that you must use is the one facing Bethel Valley Road closest to the intersection. Someone should be there to let you in. See attached photo. DO NOT USE ANY OTHER BUILDING ENTRANCE!



Google Earth Address of Training Facility: 35.983667 -84.222

LODGING

Holiday Inn Express 114 Tulsa Road Oak Ridge, TN 37830 865.298.1990 888.465.4329 **Staybridge Suites** 420 S. Illinois Avenue Oak Ridge, TN 37830 865.298.0050 800.238.8000

TRANSPORTATION

<u>Air travel</u> reservations should be made to McGhee-Tyson Airport (TYS), Knoxville, TN, which is located 35 miles from Oak Ridge.

<u>Taxi</u>

Yellow Cab 865.483.4343