



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
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(FSME-12-018, February, Training, H-123)

February 23, 2012

ALL AGREEMENT STATES

**ANNOUNCING THE AVAILABILITY OF A NEW HEALTH PHYSICS TRAINING COURSE  
AND THE INTRODUCTION OF THE NRC'S HEALTH PHYSICS TRAINING SERIES  
(FSME-12-018)**

**Purpose:** To inform the Agreement States of the new Fundamental Health Physics III (H-123) course and the creation of the NRC's Health Physics (HP) Series training courses.

This letter is a follow-up to the notification sent to Agreement States via e-mail by Ms. Brenda Usilton on January 6, 2012, announcing the availability of the new H-123 course. The NRC is interested in receiving feedback\* on the H-123 course and the HP Series as a whole to help determine whether this training curriculum meets the needs of the Agreement States.

**Background:** The Organization of Agreement States (OAS) asked the Inspection Manual Chapter (IMC) 1246 Working Group to "consider ways to allow the funding of state staff to attend the Five Week Health Physics Course (or its equivalent)." In response, the IMC 1246 Working Group evaluated the content of the current health physics courses sponsored by the NRC and available to the Agreement States. Based on the results of that analysis, the Working Group identified topics and labs that were taught in the 5-week Applied Health Physics course, but are not taught in the current NRC courses. As a result, the Working Group recommended the creation of an additional 5-day health physics course. The new course and the creation of the new HP Series are designed to offer equivalent training to the 5-week Applied Health Physics Course.

**Discussion:** In response to the OAS request, the IMC 1246 Working Group recommended the creation and development of a new 5-day HP course. The Fundamental Health Physics III (H123) course builds on the 10-day Fundamental Health Physics I & II (H-122) course by focusing on the analysis of gamma and neutron-emitting radionuclides, providing an accelerator overview, and discussing x-ray fluorescence. Course topics will include gamma spectroscopy (identification); germanium detectors; gamma spectrometry (quantification); x-ray fluorescence; neutron sources; neutron interactions; neutron detection; neutron activation; and, accelerators. The new 5-day course also includes hands-on laboratory exercises.

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\* This information request has been approved by OMB 3150-0029 expiration 11/30/2013. The estimated burden per response to comply with this voluntary collection is approximately 8 hours. Send comments regarding the burden estimate to the Records and FOIA/Privacy Services Branch (T-5F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to [infocollects@nrc.gov](mailto:infocollects@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202 (3150-0029), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

The new course will be the second in a series of three health physics courses in the NRC's Human Resources Training and Development HP Series. The three courses are Fundamental Health Physics I & II (H-122), Fundamental Health Physics III (H-123), and Advanced Health Physics (H-201). The three courses will provide five weeks of health physics training. The HP Series will be in addition to the technology and specialty courses, for example Industrial Radiography (H-305) and Environmental Monitoring (H-111) among others currently available to the Agreement States

As mentioned above, H-123 is a new NRC course. It has the following course description:

"This 5-day course builds on the Fundamental Health Physics I & II (H-122) course by focusing on the analysis of gamma and neutron emitting radionuclides. Course topics will include gamma spectroscopy (identification); germanium detectors; gamma spectrometry (quantification); neutron sources; neutron interactions; neutron detection; neutron activation and accelerators. Hands-on laboratory exercises and practical demonstrations are utilized for each topic."

The other two courses that make up the HP series are existing NRC courses. The two courses were modified to reflect the creation of the H-123 course and the HP Series. The title of the H122 course has changed from Basic Health Physics Technology (H-122) to Fundamental Health Physics I & II (H-122), and it has the following course description:

"This 10-day course will cover fundamental health physics theory and principles, with significant emphasis on hands-on laboratory exercises and practical demonstrations in radiation protection and measurement. Course topics will include: introduction to radioactivity, interactions of radiation with matter; counting statistics, radiation instruments and calibration; radiation quantities and units; radiation shielding; radiation safety regulations; radiation surveys; liquid scintillation counting, biological effects of radiation; radioactive waste; medical use of radiation and external dosimetry."

As the titles and description imply, the H-122 course should be taken before the H-123 course. The H-123 course is intended for staff that may need additional instruction in health physics after completing H-122. H-123 builds on the material taught in H-122.

The H-201 course title has changed from Health Physics Technology (H-201) to Advanced Health Physics (H-201). Staff with no health physics background/experience or training should take the HP series in order.

There will be two offerings of the H-123 course in 2012, both in Oak Ridge, TN. H-123 will be held during the weeks of June 25-29, 2012 and December 10-14, 2012. Agreement State staff interested in registering for the H-123 course need to submit a training application to Ms. Brenda Usilton at [Brenda.Usilton@nrc.gov](mailto:Brenda.Usilton@nrc.gov) or fax it to her at 301-415-3502.