

News Release: EMERGENCY RESPONSE AND NANOTECHNOLOGY

Past meet future at the Health Physics Society (HPS) meeting Wednesday sessions in Pittsburgh.

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****FOR IMMEDIATE RELEASE ****

McLean, VA, July 15, 2008 — The following topics will be presented Wednesday, July 16, at the 2008 Annual Meeting of the Health Physics Society (HPS) in Pittsburgh, PA at the David Lawrence Convention Center. Information about all of the presentations can be found at http://hps.org/documents/53_preliminary_program.pdf

Learning from Past Emergency Response

In a special session running all day Wednesday, presenters will share lessons learned during past incidents involving emergency evacuations, including some involving radiation releases, and the ensuing emergency response (some involving radiation). Presenters use these lessons to model future event responses. One such paper (“Assessment of Emergency Response Planning and Implementation in the Aftermath of Major Natural Disasters and Technological Accidents”, Patricia Milligan, pjm@nrc.gov) highlights what has been learned about emergency evacuations: “An important countermeasure in all radiological emergency response plans in the United States is the evacuation of the population in the event of a general emergency condition at a nuclear power plant. In January 2005, the U.S. Nuclear Regulatory Commission (NRC) published its landmark report, "Identification and Analysis of Factors Affecting Emergency Evacuations" (NUREG/CR 6864/), which remains the most comprehensive investigation of public evacuations in the United States in more than 15 years. Data was collected for 230 evacuation incidents, occurring between January 1, 1990 and June 30, 2003. Detailed case studies were prepared for a subset of 50 incidents that were selected based on a profiling and ranking scheme designed to identify evacuation incidents of sufficient complexity to challenge the local and regional emergency response capabilities.

Other highlights in emergency response session:

- Evacuation or shelter-in-place (Wednesday, 8:45 a.m.)
- Effectively using measures to mitigate the health effects of radiation exposure (Thursday, 8:45 a.m.)
- Current capabilities versus what may be needed in a response effort (Wednesday, 9:45 a.m.)
- Protection of life and property after a radiological dispersal device is activated (Wednesday, 11:45 a.m.)

The Future of Nanotechnology

Beginning at 4:00 p.m. Wednesday afternoon, nanotechnology will be highlighted in a series of presentations designed to increase awareness of new opportunities and challenges. Leading the session will be individuals from Health International Inc. discussing the increased use of nanoparticles having a global exponential impact and revolutionizing nearly every industry: agricultural, chemical, biological, pharmaceutical, medical, electronic, green-energy. This use, however, may pose a health risk for workers and consumers. Nanoscale materials are virtually invisible, yet once inhaled or ingested are able to penetrate and leave deposits on the cell walls of living organs and tissues undetected. Tools and solutions

for assessing nanotech and nanoscale materials could be implemented easily based on existing models and methodologies that take into account the delicate balance between security and safety.

Other highlights in the nanotechnology session:

- The National Institute for Occupational Safety and Health safety plan for working with nanoparticles (Wednesday, 4:15 p.m.)
- Potential use of nanoparticles as radiopharmaceuticals (Wednesday, 4:30 p.m.)
- Panel discussion on nanotechnology (Wednesday beginning at 4:45 p.m.)

ABOUT THE HEALTH PHYSICS SOCIETY

The Health Physics Society consists of approximately 5,500 radiation safety professionals whose activities include ensuring safe and beneficial uses of radiation and radioactive materials, assisting in the development of standards and regulations, and communicating radiation safety information.

The Society is a nonprofit organization formed in 1956. Its primary mission is excellence in the science and practice of radiation safety. The Society has members in approximately 70 countries, and has established nearly 50 chapters and 10 student branches. Visit www.hps.org for more information.

Health physicists promote the practice of radiation safety. They work in occupational environments such as universities, local hospitals, manufacturing, and nuclear power plants as well as in environmental areas such as radioactive waste sites. They are involved in understanding, evaluating, and controlling radiation's potential risks relative to its benefits in applications such as fighting disease, supplying energy, and increasing security.

Reporters who would like to attend the meeting or who need assistance contacting the presenters should contact HPS Media Liaison Kelly Classic at 507-254-8444 during the meeting or 507-284-4407 prior to July 12.