



# NCHPS

Fall 2008

The North Carolina Chapter of the Health Physics Society (NCHPS) is a professional organization dedicated to the development, dissemination and application of the scientific knowledge of and practical means for radiation protection.

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## President Elect Update by Laura Pring

Thank you for your vote of confidence in nominating and electing me as the next North Carolina Health Physics Society President. Since our chapter was established in 1965 under the charter of the National Health Physics Society, NCHPS has been a great resource for radiation safety professionals across the state. As Program Chairperson, a duty that falls to the President-elect, I shall strive to continue to provide chapter meetings that are informative and diverse, touching on many areas of health physics and focusing on current hot topics. Our Fall meeting will be held in uptown Charlotte on November 6th and 7th at the Holiday Inn City Center. The program will focus on current medical, nuclear power, environmental, industrial, regulatory and homeland security health physics topics. Nationally known speakers include HPS President-elect, Howard Dickson; Health Physics

Environmentalist, Dr. John Till; Homeland Security expert, Bill Rhodes of Sandia National Laboratories; and Dr. Perry Sprawls, Medical Physics Professor at Emory Medical School. In addition to Dr. Sprawls' presentation on CT dose optimization, as the dinner speaker on Thursday evening, he will also speak to us on the topic of "The Early Days of X-ray in North Carolina and the Davidson College Experience." Also, on Thursday evening, the chapter will recognize Brian Whitson, this year's recipient of the Health Physics Society's Outstanding Science Teacher Award. In addition, the "Fundamentals of Digital Radiography" professional development course taught by Andrew Woodward of UNC will be offered before the meeting on Thursday morning. Our Spring meeting is

moving to a new location. The 2009 spring meeting will be held in New Bern on March 12th and 13th. This will be a joint venture with the Virginia Health Physics Society Chapter. We look forward to hosting our Virginia colleagues. The NCHPS has a long standing tradition of excellence and professionalism to uphold. I look forward to working with the NCHPS Executive Council and its members to continue this tradition and to ensure that the NCHPS will continue to be a valuable resource for future generations of North Carolina Health Physicists. I hope to see all of you in Charlotte!



## Unite we stand...Together we serve....

**.....This is an exercise Message! I repeat this is an exercise message!!!**

On July 29<sup>th</sup> And 30<sup>th</sup>, 2008 NCDENR-Radiation Protection, TOREV, Federal, State and local Emergency response agencies successfully came together for the Ingestion Pathway exercise required by law every 6 years. The event was staged at the Catawba Nuclear Power Plant and hosted by Duke Energy...

**Day 1 Events:** The first day Duke Power simulated this release of radioactive iodine into the environment. Duke's excellent staff established the Incident Command and compared dose projections with the State dose evaluators provided by State and power plant field teams.

**Day 2 Events:** This exercise was successful and dependent on the teamwork between the NRC, 42<sup>nd</sup> Civil Support Team of the Army National Guard. The NC Dept of Agriculture worked with farms in the area around the Catawba plant to stage emergency Response testing of food, dairy and vegetation response.

**Preplanning Events:** In April 2008 in Charlotte, FRMAC (Federal Radiological Monitoring and Assessment Center) hosted a preplanning event that brought together Federal, State and local agencies and responders. At this preplanning event we confirmed what resources, time lines and logistics were needed and would be brought to the table in the event we would all be called to respond and serve the citizens of North Carolina.

**A big thanks to all who participated in this exercise and allowed employees to Participate, plan and host this emergency response exercise....**

- Local area Farms for field team testing
- NRC
- NC FDA North Carolina Federal Department of Agriculture.
- NCDENR-Radiation Protections Section
- North Carolina Health Physicist Society-TOREV
- North Carolina 42<sup>nd</sup> Civil Service Team
- National Guard and Airforce Armory Charlotte International
- Charlotte FRMAC

### **Technology Activated and Introduced:**

- NCDENR-RPS Incident Command post on the recently purchased Mobile Lab
- RAP (Radiological Assessment Program) Teams
- Civil Service
- Labs
- RASCAL Dose Assessment compare to RADDOS Dose Assessment

**NCHPS 2008 Fall Meeting Registration Form**  
**November 6-7, 2008 at Holiday Inn Charlotte-Center City**  
**230 N College St, Charlotte, NC, 28202**

A block of rooms has been reserved for November 6th and 7th at the government per diem rate of \$88 per night excluding taxes. Room reservation cut-off date is October 6, 2008.

Reservations (code NCH): 800/287-0037, or on line from the [www.nchps.org](http://www.nchps.org) Meetings link

**Featuring Presentations by:**

- Howard Dickson, CHP, HPS President-elect
- John Till, PhD, President, Radiological Assessments Corp
- Perry Sprawls, PhD, PE (FACR, FAAPM, DABR, DABMP, CCE), Emory School of Medicine
- William Rhodes III, CHP, Sandia National Laboratories
- Christopher Martel M.S., CHP, Boston University/Boston Medical Center
- Jay Tarzia M.S., CHP, Radiation Safety and Control Services
- Ben Edwards, M.S., CLSO, Duke University
- Beth Franklin, M.S. DABR, Carolinas Medical Center
- Dale Holden, Duke Energy
- Matt Norton CIH, CSP, Vice President, Philotechnics Ltd.
- Allen Mabry, M.S., CHP, General Electric Company Nuclear Fuels
- Larry Haynes, CHP, Duke Energy
- Jon Granger, NC DENR
- John Thrasher, Duke Energy

**Professional Enrichment Program:** "Fundamentals of Digital Radiography", presented by Andrew Woodward MA, R.T.(R)(QM) (CT)(ARRT), Clinical Professor, UNC School of Medicine

Name for badge: (First) \_\_\_\_\_ (Last) \_\_\_\_\_

Affiliation (for badge): \_\_\_\_\_

Address and Contact Information

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip/Postal Code: \_\_\_\_\_

Business Phone: \_\_\_\_\_ FAX: \_\_\_\_\_

Email: \_\_\_\_\_

**Preregistration Deadline is October 30, 2008**

Meeting Registration Fees	Preregistration	Registration
<input type="checkbox"/> HPS, NCHPS, or other HPS Chapter member	\$55	\$60
<input type="checkbox"/> Non-NCHPS or HPS member	\$60	\$65
<input type="checkbox"/> Student	\$15	\$15
Registration Total: _____		
<input type="checkbox"/> PEP Course: Digital Radiography	\$50	\$55
Total Enclosed: _____		

Make checks (Our apologies: the Chapter cannot accept PO or Credit Card) payable to:  
 North Carolina Health Physics Society (NCHPS)

Mail Registration Form to:

**Todd Becker**  
**North Carolina State University**  
**2620 Wolf Village Way, CB 8007**  
**Raleigh, NC 27695-8007**

# NCHPS PEP Course

## *Fundamentals of Digital Radiography*

**Andrew Woodward MA, R.T.(R)(QM)(CT)(ARRT), Clinical Professor, UNC School of Medicine**

**Target Audience:** Medical imaging professionals, health physicists, biomedical engineers and radiography students.

**Course Description:** Radiography in the 21<sup>st</sup> Century has presented the imaging medical community with a dramatic shift in the manner in which routine radiographic images are captured and displayed. This course provides the computed and direct digital radiography information necessary for effectively operating within today's radiographic environment, and explains how to apply the ALARA concept when working with digital technology.

**Course Objectives:** Upon completion of this course the participant should be able to:

- Describe the fundamental principles of exposure for digital detectors.
- Describe the fundamental principles of receptor exposure and receptor response.
- Describe the effect of initial image processing components such as exposure field recognition, histogram analysis, and rescaling on digital image appearance.
- Compare dynamic range to exposure latitude.
- Relate screen/film exposure principles to digital exposure principles.
- Describe the effect of exposure errors on image appearance.
- Describe the use of the exposure indicator in evaluating or adjusting technical factors.
- Relate the appearance of a digital image to the technical factors employed.
- Apply the concept of ALARA to digital imaging.

**Cost:** \$50.00

Place/Time: Holiday Inn Charlotte-Center City 230 N. College St. Charlotte, N.C.

Thursday November 6, 2008 8am-12pm

Continuing education credits applied for.

Registration Information:

NAME: \_\_\_\_\_

Facility: \_\_\_\_\_

All registration forms and checks should be mailed to:

Todd Becker, NCHPS  
2620 Wolf Village Way CB 8007  
Raleigh, NC 27695-8007

\* The chapter reserves the right to cancel the course due to low enrollment.

## NEWFLASH! By David Lee

So the issue I am about to discuss is certainly not new to many of you, but I tend to gauge "Public Issues", by how many times I may hear about a subject from the general public, friends etc...

Many of you who know me well, know how I love a good game of competition, any game anywhere, yet Bob Emery and I have failed to meet in the "finals" of table hockey, that is another story altogether and one of absolutely no interest to anyone other than Bob and me. Okay, so let us see how quickly you can identify this "issue". The most recent initial resurgence of this topic was July 24, 2008, in a NY Times article. That is enough of a clue for some of you. Next, carried by the Associated Press, I saw an article in the

Raleigh News and Observer. Not much more help there. It was a topic of discussion at the North Carolina Radiation Protection Commission meeting this July. This is certainly the norm for radiation protection issues involving the general public. And the most recent occurrence, I was driving a friend home and talking about my latest project at home and he says, "oh have you heard about the issue of \_\_\_\_\_ associated with [that material]". Okay, that should be enough for everybody to figure out. If not, ubatuba. Google that and you will find the answer. Or, you could just read on. Yes, naturally occurring radioactive material present in granite used for countertops. From a professional standpoint, there

are two considerations, radon gas and radiation emissions (gamma) from the material itself. A literature search and EPA reports tell me that this issue is not a great concern, but I did perform my own little "survey" at a granite slab yard or two, this just happened to coincide with our selection of the slab of granite we planed to have cut and installed in our kitchen. With a microR meter in hand, elevated background levels and some slabs indicative of more activity than others, was the result. Finally, a call to the NC Radiation Protection Section to determine the level of public interest and a recent story airing on the local CBS station, tells me that yes, this is an issue presently alive in the realm of public interest, at least for now.

## Outstanding Science Teacher of the Year

On July 14, 2008, the National Health Physics Society at their annual meeting in Pittsburgh presented Brian Whitson the "Geoffrey G. Eichholz Outstanding Science Teacher Award." This national award honors the high school teacher who has made the most significant contribution to the education of students in topics related to the field of Radiation Safety. Brian taught Chemistry at Salisbury High School for ten years and has made a long lasting impression upon the facility and his students. Members of the North Carolina Health Physics Society initiated the nomination along with the assistance of Salisbury High School's principal, Dr. Windsor Eagle. Brian was introduced at the National Health Physics Society awards ceremony with the following words from Dr. Eagle's recommendation letter: "In only a few short years, Brian increased the chemistry



program from three classes of 60 students to eight classes of over 160 students. Brian is a truly exceptional individual. Parents, students and fellow faculty members revere and admire him. He is a true professional in every facet of his behavior and personality." The award consists of a citation and plaque, cash award of 750 dollars to Salisbury High School in Brian's name, and an honorary membership in the National Health Physics Society. In his acceptance speech, Brian discussed his unique teaching approach to the topic of nuclear power, which increased the understanding and opened the minds of his students to make more informed choices regarding nuclear energy. The North Carolina Health Physics Society will also honor Brian at their annual meeting on November 6, 2008, in Charlotte.

## 2008 Updated Affiliates of the North Carolina Chapter of the Health Physics Society

<b>Protean Instruments Corporation</b>  <b>Darrell Scoggins</b> 231 Sam Rayburn Pkwy Lenior City, TN 37771 865-717-3456	<b>Thermo Scientific</b>  <b>David Nice</b> 303 Wingcup Way Simpsonville, SC 29680 Tel: (864)963-7996 Cell: (864)-630-9703	<b>Bionomics Inc</b>  <b>John McCormick</b> PO Box 817 Kingston, TN 37763 865-220-8501	<b>Laurus System Inc.</b>  <b>Laura Lynch</b> 8779 Autumn Hill Drive Ellicott City, MD 21043 (410) 465-5558
<b>PerkinElmer Life Sciences</b>  <b>Julie Ginsler</b> 218 Parkridge Drive Clayton, NC 27520 P: 919-553-4698 C: 919-522-6741	<b>Wm B. Johnson &amp; Assoc</b>  <b>Dick Landfried</b> PO Box 472 Ronceverte, WV 24970 (304) 645-6568	<b>Ortec</b>  <b>Marc Menigo</b> 801 South Illinois Ave. Oak Ridge, TN 37830 (770) 979-3957	<b>Global Dosimetry Solutions</b>  <b>Terry C. Moore</b> 1924 Falling Creek Circle Mt. Pleasant, SC 29464 P: 843-849-9093 C: 843-991-5291
<b>Canberra Industries</b>  <b>Ron Vermilye</b> 800 Research Parkway Meriden, CT 06450 800-243-3955	<b>DEQ Technical Sales</b>  <b>Ray McPhillips</b> <b>Mike Shephard</b> 7767 Maida Vale Circle Powell, TN 37849 865-621-5123 (cell) 865-947-5123 (office)	<b>Ludlum Measurements</b>  <b>Dwane Stevens</b> PO Box 810 Sweetwater, TX 79566 (325)-235-5494 (800) 622-0828	<b>Philotechnics, Ltd</b>  <b>Bob Pastor</b> 201 Renovare Blvd. Oak Ridge, TN 37830 865-285-3009 direct 865-406-8106 cell
<b>Ecology Service Inc</b>  <b>Paul Marshall</b> 102200 Old Columbia Columbia, MC 21046 (410) 381-2600	<b>Radiation Safety and Control Services</b>  <b>Jay Tarzia</b> 91 Portsmouth Ave Stratham, NH 03885	<b>Landauer Inc</b>  <b>Laura Southard</b> 2 Science Rd Glenwood, IL 60425 800-323-8830	<b>F&amp;J Specialty Products, Inc.</b>  <b>Frank Gavila</b> 404 Cypress Road Ocala, FL 34472 (352)680-1177 fax (352)680-1454 fandj@fjspecialty.com
<b>Chase Environmental</b>  <b>John O'Neil</b> 11450 Watterson Ct. Louisville, KY 40299 joneil@chaseenv.com	<b>Thanks To All Our Affiliates!!</b>		

### Stansbury Elected to the American Academy of Health Physics

The NCHPS' western-most member, Paul Stansbury, (he lives in the state of Washington) was elected President-Elect of the American Academy of Health Physics. The Academy is all of the CHPs who chose to stay active in it. Paul's year-long term as President Elect begins

January of 2009, followed by a year as President, and a year as immediate Past President. In all three years, he will serve as a member to the Academy's Executive Committee, the body that runs the Academy on a day-to-day basis.