



NCHPS NEWSLETTER

SEPTEMBER 2006

President Elect Message

Ritchie Buschow

First, I would like to thank the chapter for its vote of confidence in allowing me to serve as the next President of the North Carolina Health Physics society. Serving as the President-Elect, I am charged with coordinating the chapter meetings.

Our first meeting will be held November 2 and 3 at the Courtyard Marriot in Carolina Beach. You may recall we had the meeting at this location during the fall of 2005. Members who attended seemed to enjoy this location and I thought it would be appropriate to hold the meeting at the same location again this year. We are honored this year to have Dr. Dade Moeller as one of our speakers. Dr. Moeller's experience and reputation in the field of Health Physics is unsurpassed. In addition, Dr. Kevin Nelson, National President-Elect will speak on 'Medical Response to Radiation Incidents'. Thursday morning before the meeting, we are offering a short course/seminar on advanced concepts in liquid scintillation counting to be sponsored and conducted by Perkin Elmer. Thanks to Julie Ginsler for her efforts in coordinating this event.

The spring 2007 meeting will be held on February 22 and 23, 2007 in Charlotte. More information regarding the spring meeting will be forthcoming. I would like to personally thank both Laura Pring and Ben Edwards for the help they have provided me so far as members of the Program Committee.

I would like to extend the challenge to each individual member of the chapter to get involved with the society. There are a number of volunteer events one can participate in including education outreach (i.e., Science Teachers Education), assisting with Programs, presenting at meetings, attending meetings and providing outreach to other organizations with similar missions. Educating the general population regarding the safe uses of ionizing radiation in research, industry and medicine is what the Health Physics Society is all about.

Thanks again for the opportunity to serve our chapter.

News Flash

David Lee

The Department of Homeland Security, through a special grant program, has awarded the North Carolina Radiation Protection Section, \$155,000 for the purchase of an emergency response vehicle and equipment and to provide training.

The Radiation Protection Section (RPS) will receive these funds as part of a grant from the Department of Homeland Security through the State's Homeland Security Grant Program. The grant award details include: \$100,000 of the award for a new emergency response vehicle, and \$55,000 for training and equipment oriented toward CBRNE (Chemical, Biological, Radiological, Nuclear, and Explosive) detection.

The new vehicle will be specifically designed and tasked for emergency use. Mr. Grant Mills and Mr. Lee Cox of RPS will be coordinating the design of the vehicle to meet Section needs. These include communications and radiation detection equipment, including capability to deploy in-situ gamma spec equipment, if needed.

The training and equipment portion of the award will be for RPS staff in using technology that could be deployed in CBRNE or other radiation detection environments. Among some of the anticipated technology purchases are portable nuclide identification equipment for use by the Section.

Efforts by Ms. Robin Haden, Mr. Dale Dusenbury, both of RPS, and also Dr. Ken Taylor, with the North Carolina Department of Environment and Natural Resources, were instrumental in obtaining these funds.

Science Teacher Workshop Update Dale Dusenbury

Over the summer the Radon Program at the Radiation Protection Section was involved with several outreach activities, along with ongoing research. Such as UNC-Charlotte students studying radon in air levels around Lake Rankin in Gaston County and Lake Moss in Cleveland County. In addition, Ted Campbell of the North Carolina Division of Water Quality has been conducting research in the Western Counties to correlate radon in air and radon in water levels with geological features in the area. Wake County Environmental Health continued their work of collecting air and water samples for radon testing. If you have questions, please contact Felix Fong at 919-571-4141.

Preparations are continuing for the Science Teachers Workshop on November 9-10, 2006 at the Khoury Center in Greensboro, NC. This year's goal is to introduce more teachers to radiation issues, by better incorporating the workshop presentations into the conference schedule. The presentation on individual topics will be a little shorter to allow more teachers to attend and obtain materials if they want them.

There are plans for a booth at the Conference as well, staffed jointly by NCSU Nuclear Engineering and the NCHPS. Interested volunteers should contact **Talytha Moore at 919-571-4141** or **Lisa Marshall at 919-515-5876**.

Student Paper Competition

The 2006-2007 student paper competition sponsored by our Society is calling for papers from students (undergraduate, graduate or post doctorate) who are enrolled in an accredited institution of higher learning and performing research. The competition is an oral presentation on any subject applicable to the field of health physics, radiological health or bio-radiological health. The student may report on completed original research or works in progress.

How to Enter:

Submit an abstract of their paper (not more than 150 words) to:

**Student Paper Competition
North Carolina Health Physics Society
P.O. Box 20051
Raleigh, NC 27619**

**All Submissions must be received on or before
January 15, 2006**

Competition:

1. The best four papers will be chosen and those students will be asked to make an oral presentation at the NCHPS Spring meeting on February 22-23, 2007 in Charlotte, NC.
2. Each student's presentation will be limited to 20 minutes. The competition winner will be announced at the end of the meeting.

Prizes:

1. Each student chosen to present will receive free admission to the Spring NCHPS Meeting, one night stay at the meeting hotel and a certificate of participation.
2. The best presentation, as determined by the student paper committee, will receive either \$150 cash or \$750 in reimbursement as explained below.
 - a. If winner has been selected to present at the National Health physics Society meeting held in Portland, OR on July 8-12, 2007, he or she will receive reimbursement of expenses, up to \$750 to attend the national meeting.
 - b. If not presenting at the national meeting the best presenter will receive a \$150 cash award.
3. The committee reserves the right to select fewer presenters depending upon the quantity and or quality of submissions.



Julie Ginsler,
919-522-6741,
Julie.ginsler@perkinelmer.com

PerkinElmer Life & Analytical Sciences is a US based manufacturer of radiochemicals and detection equipment for radioactivity. They offer a wide variety of highly purified radiochemicals manufactured in the Boston area. Custom preparation is also available. Equipment that is manufactured includes counters for alpha, beta and gamma emission, low level radiation counters, flow scintillation analyzers and oxidizers.

Recently PerkinElmer launched their 'Shopping Basket Approval' process as a resource for radiation safety offices. How it works: Individuals in the labs can register to shop-on-line on the PerkinElmer storefront for radiochemicals. The individual submits their order and it gets routed to their radiation safety office for approval. Radiation safety approves the order on line and PerkinElmer processes the order. A confirmation is sent when the order is accepted and a confirmation is e mailed when the order is shipped including the tracking number. Orders are always shipped to the radiation safety address to be checked in. The program is flexible and tailored to the needs of the institution. UNC for example chooses to receive confirmation when a radioactive shipment has been sent to them. Duke University is approving the individual lab orders before PerkinElmer processes the order.




Ron Vermilye
Office: 803-699-8019
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RVermilye@canberra.com

Canberra is the world's leading supplier of analytical instruments, systems and services for radiation measurement. Applications for Canberra offerings include health physics, nuclear power operations, Radiation Monitoring Systems (RMS), nuclear safeguards, nuclear waste management, environmental radiochemistry and other areas.

The new Canberra has the broadest array of Health Physics capabilities in the industry. HP related products include a full range of gamma and alpha spectroscopy equipment, personnel contamination monitors, hand held survey instruments for alpha, beta, gamma and neutron measurement, whole body counters and area monitors. The company also offers a full range of services including repair and maintenance, training and expert data review.



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Vendors for the Fall Meeting Include:

Perkin Elmer
Philotechnics
Canberra Industries
Landauer
Thermo Electron
WB Johnson

If your company would like to participate or be represented at the upcoming meeting, please contact:

Ritchie Buschow, NCHPS Pres-Elect
919-541-0550 buschow.ritchie@epa.gov

Thermo RadReachBack™ Communicates Radiation Threats *A Key Part of Emerging “Triad Spec” for Homeland Security Technology* http://www.thermo.com/com/cda/newsevents/news_detail/1,,11869,00.html

Thermo's RadReachBack™ detection instruments contain a patented software capability that enables emergency personnel to get real-time, 24/7 technical analysis of radiation samples they find in the field. With the RadReachBack™ system, data from a personal radiation detector (PRD), mobile system or radiation portal can be sent directly to a command center, expert analysis facility, or even a next-level response agency.

Limited network communications capabilities have been available in Thermo Electron products for several years, but RadReachBack™ is now a branded option available in every identification and detection product, from the new Interceptor™ and RadEye™ PRDs, to the Matrix™ mobile detection platform and ARIS-2 (Advanced Radioisotope Identification System).

RadReachBack™ is significant because it comprises the communications component of an emerging system requirement by security units and law enforcement agencies in today's post 9/11 world.

Detection, identification and communication – and their integration into a single, state-of-the-art system – has become a central requirement for a growing number of agencies and security groups. Agencies want to integrate the technologies in which they have already invested, as well as the newest, cutting-edge products, into a comprehensive, reliable, networked system.

RadReachBack™ gives field personnel immediate access to expert analysis centers. This allows responders – even those with little training in radiation – to understand the nature of a threat they have encountered and call for the proper level of response. Thermo's commitment is to enable real-time assessment of the threat, with the connectivity required for appropriate and immediate interdiction.

Thermo Electron Introduces the High-Performance Interceptor *First in the New SPRD Radiation Detection and Identification Category* http://www.thermo.com/com/cda/newsevents/news_detail/1,5588,11872,00.html

Thermo Electron today introduced the Interceptor™, the first pager-sized instrument that enables anti-terrorism officials and other homeland security personnel to detect and identify possible nuclear threats. The Interceptor enables immediate identification of the radionuclide and electronically transmits the data, along with a digital picture and an audio description of the situation.



The SPRD has features that have, until now, required two separate instruments: (1) a Personal Radiation Detector (PRD), and (2) a Radiation Isotope Identifier Device (RIID). The PRD is a hand-held device that is easily clipped to a duty belt and used by an emergency responder to detect a potential threat. While PRDs – like those from Thermo Electron with RadReachBack™ capabilities – communicate to a base station or appropriate experts; they do not pinpoint the type of isotope. That job typically falls to the RIID, a more sophisticated instrument, which is used to identify specific isotopes as the physical situation is assessed.

“The Interceptor is the first device of its kind to combine the high sensitivity of a PRD with the immediate, accurate identification capabilities of a high-resolution CZT and He3 based RIID, all in one, affordably priced, compact unit,” said Thomas Loewald, vice president and general manager for Thermo Electron's Radiation Measurement and Security Instruments. “By identifying the source isotope in real time, users can make immediate and informed decisions about interdiction actions.”

Because of the Interceptor's multiple features, agencies can now purchase one single unit rather than both a PRD and a RIID. Affordable basic units are scalable, allowing additional features to be added as needed. And the Interceptor's simple interface makes it easy to learn and operate, cutting down on both up-front training time and costs, and field errors. Designed and built in the U.S., the Interceptor is dust tight, waterproof and shock resistant, providing long-lasting, reliable service in real-world situations.

Affiliates of the North Carolina Chapter of the Health Physics Society

GE Health Care

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800 Centennial Ave
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919-570-6229

Thermo Electron

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736 Fenster Court
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Cell: (317)-402-2224

Bionomics Inc

John McCormick
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Kingston, TN 37763
865-220-8501

Laurus System Inc.

Laura Lynch
8779 Autumn Hill Drive
Ellicott City, MD 21043
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Protean Instruments Corporation

Joe Bradley
PO Box 1008
231 Sam Rayburn Pkwy
Lenior City, TN 37771
865-717-3456

Wm B. Johnson & Assoc

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PO Box 472
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(304) 645-6568

F&J Specialty Products, Inc.

Frank Gavila
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fax (352)680-1454
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Global Dosimetry Solutions

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P: 843-849-9093
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Canberra Industries

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Meriden, CT 06450
800-243-3955

Ludlum Measurements

Dwane Stevens
PO Box 810
Sweetwater, TX 79566
(915) 235-5494

DEQ Technical Sales

Ray McPhillips
7767 Maida Vale Circle,
Powell, TN 37849
865-621-5123 (cell),
865-947-5123 (office)

Philotechnics, Ltd

Annette Hansen
PO Box 4489
Oak Ridge, TN 37831
(865) 483-1551

Ecology Service Inc

Paul Marshall
102200 Old Columbia Rd
Columbia, MC 21046
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PerkinElmer Life Sciences

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C: 919-522-6741

EnviroCare of Utah

Kevin Taylor
17 College Street
Greenville, SC 29601
(864) 235-3695

Landauer Inc

Carl Milam
782 Dunshea Court
Kennesaw GA 30144
800-323-8830

Ortec

Marc Menigo
801 South Illinois Ave.
Oak Ridge, TN 37830
(770) 979-3957

NSSI

Kimberly Page
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Malvern, OH 44644
(330) 863-0044

RSO, Inc.

Wendy Caulk
P.O. Box 1450
Laurel, MD 20725
888-723-5463

Executive Council – 2006/2007 Session

I. Elected Officials

Office	Name	Telephone	Mailing Address	E-mail Address	Elected
Past President	Gerald Wicks	919/515-4601 (W) 919/515-5115 (Fax)	NC State University 2119 Burlington Lab, Box 7909 Raleigh, NC 27695	wicks@eos.ncsu.edu	2004
President	John McLamb	919/541-4235 (W) 919/541-1893 (fax)	NIEHS/Rad Safety Office (F070) 111 T.W. Alexander Dr. RTP, NC 27709	Mclamb1@niehs.nih.gov	2005
President-elect	Ritchie Buschow	919-541-0550 (W)	109 TW Alexander Drive, Room 330B, Mail Drop D343-02, RTP, NC 27711	buschow.ritchie@epa.gov	2006
Secretary	Amy Orders	919/515-5208 (W) 919/513-2690 (fax)	NC State University 1150 Varsity Drive, Box 8007 Raleigh, NC 27695-8007	amy_orders@ncsu.edu	2006
Treasurer	James Albright	919/571-4141(W)	Div. of Rad. Protection 3825 Barrett Dr. Raleigh, NC 27609	james.albright@ncmail.net	2005
Council person	Roger Sit	919/962-5711(W)	1120 Estes Drive Extension Campus Box 1650 Chapel Hill, NC 27599-1650	rsit@unc.edu	2004
Council person	J. Marion Eaddy III	919/571-4141(W)	Div. of Rad. Protection 3825 Barrett Dr. Raleigh, NC 27609	marion.eaddy@ncmail.net	2005
Council person	Jonathan Moore	919/ 962-5713 (W)	1120 Estes Drive Extension Campus Box 1650 Chapel Hill, NC 27599-1650	jdmoore@ehs.unc.edu	2006

II. Standing Committees/Appointees

Committee	Chair	Telephone	Mailing address	E-mail Address
Program	{President elect}			
Public Info/ Education	Dale Dusenbury, Jr	919/571-4141 (W) 919/571-4148 (fax) 919/217-0989 (H)	Div. of Rad. Protection 3825 Barrett Dr. Raleigh, NC 27609	Dale.dusenbury@ncmail.net
Nominating	[Past President]			
Newsletter Editor	Giao Nguyen	919/668-3185 (W) 919/434-3766 (H)	7641 Astoria Pl Raleigh, NC 27612	nguye019@mc.duke.edu gbnguyen@nc.rr.com
Membership	Brian Cripe	704/384-3500 (W) 704/316-1348 (fax) 704/867-3695 (H)	709 Woodhaven Lane Gastonia, NC 28056	brian@ncradcom.com
Public Issues	David Lee	919/791-4203 (W) 919/ 846-6321 (H)	8033 Wavendon Ct. Raleigh, NC 27615	David.Lee@ncmail.net
TOREV	Gary Parker	919/772-5673		gdparker@nc.rr.com
Student Paper	Vacant			

III. Adjunct Members/Appointees

Program	Chair	Telephone	Mailing Address	E-mail address
Science Teacher Workshop	Dale Dusenbury, Jr	919/571-4141 (W) 919/571-4148 (fax) 919/217-0989 (H)	Div. of Rad. Protection 3825 Barrett Dr. Raleigh, NC 27609	Dale.dusenbury@ncmail.net
Survey Meter Custodian	Bill Fitzgerald	919/541-3383 (W) 919/544-4323 (H)	NIEHS/Radiation Safety Office (F070) 111 T.W. Alexander Dr. Research Triangle Park, NC 27709	fitzger5@niehs.nih.gov
HPS/Chapter Liaison	Joseph Alvarez			jalvarez@auxier.com
Historian	Amy Orders	919/515-5208 (W) 919/513-2690 (fax)	NC State University 1150 Varsity Drive, Box 8007 Raleigh, NC 27695-8007	amy_orders@ncsu.edu



FALL 2006 NCHPS MEETING

November 2 and 3, 2006

Courtyard Marriott, Carolina Beach.

The hotel room rate is \$69.00 per night. A buffet dinner will be served on Thursday evening.



Speakers include:

Kevin Nelson, National HPS President-Elect - 'Medical Response to Radiation Incidents'.

Dade Moeller, Dade Moeller & Assoc. - 'Novel Challenges from Yucca Mountain Public Dose Limits and Doses to the Public from Nuclear Facilities and Radon'

Robert Emery, Univ. of Texas/Houston - 'Radiation Safety Metrics that Matter'

Ben Edwards, Duke Univ. - 'NIST Calibration of 5 Ci Am:Be Neutron Source'.

Christopher Martel, Boston Univ. - Transitioning from Industrial to Medical Health Physicist

Daniel Sprau- East Carolina Univ. - Resurgence of Nuclear Power: Chernobyl Twenty Years Later.

Course on Liquid Scintillation Counting:

Perkin Elmer will sponsor a short course on *Advanced Concepts in Liquid Scintillation Counting*. The cost for the course is \$50. All course participants must pre-register by October 18th. The course will start at 8:30 AM on Thursday November 2 and will end around 11:30 AM. All participants must register by October 18. The chapter reserves the rights to cancel this course if not enough participants register.

Registration:

A pre-registration fee of \$40.00 for NCHPS members and \$45.00 for non-members (includes Thursday evening buffet dinner) is due by October 18th. After October 18th the registration fee is \$45.00 for members and \$50.00 for non-members and may be paid at the door. Non-registering guest buffet tickets are available for \$15.00/ea. See the registration form below. Information on NCHPS membership may be found at

<http://www.nchps.org>

Hotel Reservations:

The Courtyard Marriott is located at 100 Charlotte Ave., Carolina Beach, NC 28428. It is an excellent beach front hotel with 144 rooms and suites all with an ocean view and private balcony. A block of rooms are being held at a discounted price of \$69.00 per night. This block will be held till October 1, after which rooms will be subject to availability. For reservations call (910)-458-2030. On-line registration is available at this website

(group code nchncha): <http://www.courtyardcarolinabeach.com>

NCHPS 2006 Fall Meeting Registration Form

Pre-Registration Fee Enclosed
<input type="checkbox"/> \$40 NCHPS Member
<input type="checkbox"/> \$45 non-NCHPS Member
<input type="checkbox"/> \$5 Student
<input type="checkbox"/> \$15 Guest Buffet
<input type="checkbox"/> \$50 LSC Course

Name: _____

Company: _____

Address: _____

Phone: _____

Email: _____

Make checks payable to (sorry we do not except credit cards or PO): **North Carolina Health Physics Society (NCHPS)**

Mail to:
Ritchie Buschow
U.S. EPA Office of Research & Development
109 T.W. Alexander Drive
Room D330B, Mail Code D343-02
Research Triangle Park, NC 27711



HEALTH PHYSICS SOCIETY NORTH CAROLINA CHAPTER

MEMBERSHIP APPLICATION

<p>1. Complete the application below. If you are not a member of the Health Physics Society, signatures of two members in good standing of the chapter are required.</p> <p>2. New membership dues paid after September 1 will apply through the following year.</p> <p>Chapter Dues \$ 15.00 /year Student/Science Teacher Dues 5.00 /year Affiliate Dues 40.00 /year</p> <ul style="list-style-type: none"> • Make check payable to the North Carolina Health Physics Society. <p>Send the completed application and dues to the Membership Committee Chairperson: North Carolina Health Physics Society PO Box 20051 Raleigh, NC 27619-0051</p>	<p>Affiliate membership in the NCHPS is limited to organizations having a professional interest in the general field of radiation protection. This class of membership offers the following privileges to an organization:</p> <ul style="list-style-type: none"> • Acknowledgment in each issue of the Chapter Newsletter and in the Chapter Directory. • One year regular membership for an individual from the organization. • Receipt of all official Chapter mailings (including the Chapter Newsletter). • Access to and commercial use of the Chapter Membership Directory. • \$50.00 off normal exhibitor fees to display products/services at NCHPS chapter meetings.
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Name: _____

Company/School: _____

Address Line 1: _____

Business Phone: (____)____ - _____

Address Line 2: _____

FAX: (____)____ - _____

Address Line 3: _____

Home Phone: (____)____ - _____

City _____ State _____ Zip _____

EMAIL: _____

Education (institution, major field, degree, and date): _____

Signature & Date _____

Are you a member of the National Health Physics Society?
 YES NO

Sponsor's Signature _____

Professional Certifications (CHP,CSP,CIH,etc.): _____

Applying for :

- Chapter Membership{ }
- Student Membership{ }
- Science Teacher mailing list ...{ }
- Affiliate Membership{ }

Sponsor's Signature _____

<p>FOR CHAPTER USE ONLY:</p> <p>APPLICATION RECEIVED: _____</p> <p>APPLICATION REVIEWED: _____</p> <p>APPROVED YES / NO _____</p> <p>NEW MEMBER INFORMATION PACKAGE MAILED: _____</p> <p>DATABASE ENTRY COMPLETE _____</p>	<p>EXECUTIVE COUNCIL APPROVAL (IF NOT HPS MEMBER)</p> <p>COUNCIL MEMBER _____</p> <p>COUNCIL MEMBER _____</p> <p>COUNCIL MEMBER _____</p> <p>COUNCIL MEMBER _____</p>
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Newsletter Staff

If you have any note-worthy information you would like to share about health physics and the North Carolina Chapter members, please contact:

Giao Nguyen: nguye019@mc.duke.edu

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Raleigh, NC 27619-0051

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www.nchps.org