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 and practical means for radiation protection.

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**Message From The President: By Laura Pring**

In 2009 the North Carolina Health Physics Society Chapter has continued to be a very dynamic chapter and has retained stable membership numbers and active member participation thanks to the efforts of many dedicated NCHPS Chapter members. As Ed Maher, National HPS President-elect stated during his talk at our recent Fall Meeting in Charlotte on October 22nd, 2009, “Your Chapter does have a pulse!”

So, where do we go from here? Will the NCHPS Chapter continue to grow and contribute to the radiation safety profession into the next decade and what adjustments if any are to be made in order to maintain the Chapter’s viability? One phrase comes to mind: “You can’t tell where you are going unless you know where you have been.” During 2009, because the 45th anniversary of our Chapter’s founding is fast approaching in February 2010, I took the opportunity to look back and examine the Chapter’s history from its beginning. What I have discovered is the transformation of the Chapter from a group of ten radiation safety professionals (men), mostly from universities in the Research Triangle area, to a diverse health physics professional organization that reaches from the mountains to the coast and encompasses all groups of radiation safety professionals.

In looking ahead, I want to be sure that the Chapter’s history is remembered. It is important to recognize those individuals who were responsible for the formation of our State Society. The Chapter Anniversary Celebration is planned for the Spring Meeting on March 4th and March 5th, 2010. It is appropriate that this celebration will take place in Raleigh where the Chapter was founded in 1965. During the Spring Meeting five of the original NCHPS charter members will be recognized for their contributions to the Chapter. A copy of the original charter can now be found on the Chapter website [www.nchps.org](http://www.nchps.org), and a list of past presidents will be posted in the near future. Additionally, at the Spring Meeting there will be presentations from former students of HPS and NCHPS Past President, the late Dr. Jim Watson. The first annual “Dr. James E. Watson, Jr. Memorial Lecture” will also take place at the March meeting.

Summing up the past year, I can say it has been a great one! Taking advice from Dade Moeller and “thinking outside the box,” we have implemented new ideas to make the meetings appeal to a larger base of our membership and to the radiation safety profession as a whole. More cutting edge health physics topics as well as more operational health physics topics have been added. The 2009 Spring Meeting, which was held in New Bern, was the first joint venture with the Virginia Chapter. New professional enrichment courses such as Mike Stabin’s Internal Dosimetry course and John Till’s Environmental Risk Assessment course were introduced with great success. Many students from Francis Marion University, Clemson University and UNCC attended the courses. The 2009 Spring Meeting had seventeen presenters including two medical physics graduate student presenters in the student paper competition. Both graduate students also represented the Chapter well with presentations at the National HPS meeting in Minneapolis this past July. The 2009 Fall Meeting, held in Charlotte and hosted by Bill Byrum, featured thirteen presenters and was well attended. National HPS President-elect Ed Maher was the keynote speaker with his talk on “Challenges in Dose Reconstruction- Update on the Energy Employees Occupational Illness and Compensation Program Act.” During the Thursday afternoon session, Ed Maher presented Chapter Volunteer Awards to Ben Edwards, Dan Sprau and Dade Moeller.

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Message From The President (con't from Page 1)

Both meetings were attended by health physics professionals from sister chapters as far away as Maryland.

In addition to the meetings, members have been actively engaged in other Chapter activities. In November, Dale Dusenbury from the North Carolina Radiation Protection Section and Lisa Marshall from NCSU Nuclear Engineering Department co-chaired the Science Teacher Workshop. Roger Sit from UNC also volunteered his time at this workshop. Other local Chapter members have enthusiastically given their time by serving on committees at the national level. We are fortunate that employers including universities, medical centers, and corporations support the Health Physics Society activities both on the local and national chapter levels.

A special thank you is extended to all chapter and affiliate members who have volunteered their time and resources, and especially to the NCHPS Executive Council, who have supported and guided our efforts along the way. A Chapter member commented recently that he has seen “new life breathed into the Chapter.” We do have room for improvement as we move into the next decade, but we certainly do have a vigorous pulse. Let’s not allow the beat to stop!
North Carolina Chapter Fall Meeting Review  
by President-Elect Bill Byrum

The fall meeting of the North Carolina Chapter was held October 22nd and 23rd in Charlotte, North Carolina. The meeting was well attended with a large number of students from Francis Marion University, Clemson University, and the University of North Carolina-Charlotte present along with many other chapter members.

The meeting was preceded on Thursday morning with a three hour PEP on environmental risk assessment presented by John Till, President-Risk Assessment Corporation. Over forty attendees took advantage of the PEP. Till’s support of the chapter and his in-depth knowledge of environmental risk and risk management were well received and appreciated by the attendees.

President-elect Edward F. Maher attended the meeting and was the opening speaker Thursday afternoon, presenting the results of the ENERGY EMPLOYEES OCCUPATIONAL ILLNESS and COMPENSATION PROGRAM ACT (EEOICPA). Additionally, he presented an update on the activities of the HPS. Maher’s presentation was followed by a presentation by Dade Moeller on Estimation of Risk from Radiation Dose. These presentations were just a sampling of the exceptional speaker list that followed including Chris Martel, Sandy Perle, and other chapter members representing Duke Energy, the University of North Carolina-Chapel Hill, Duke University, the Radioactive Materials Branch of North Carolina, and other industry representatives.

As part of the Thursday afternoon program Maher presented three members the Chapter Volunteer Award. The award recipients were Ben Edwards, Dan Sprau, and Dade Moeller. Edwards has served the chapter for seventeen years holding many positions including President. Sprau has served the chapter for over thirty three years also serving as President and always willing to provide the evening dinner entertainment with interesting and informative presentations. Moeller, a pioneer in the profession, is always inspiring with his presentations and never hesitates when asked to give a presentation to the chapter.

The Thursday program was ended with the evening meal and an interesting presentation by Michael Ryan on his experiences related to dose reconstruction and the health effects studies as the results of the operation of Russian nuclear weapons facilities. Ryan’s experience and participation in the studies laced with personal experiences while traveling in Russian kept the audience’s attention, even after the delicious meal prepared by the hotel staff.

Fifteen exhibitors supported the meeting with booths and provided door prizes, trinkets, and valuable information about their products to the attendees.

A chapter business meeting was conducted. The next chapter meeting was announced with plans for a spring 2010 meeting to be held March 4th and 5th in Raleigh, NC.

A Tribute to Dr. James E. Watson, Jr. by David Lee

Many of you know that a tribute to Dr. James E. Watson, Jr. is planned for part of the program for the upcoming NCHPS Spring Meeting. The meeting will be March 4 and 5, 2010 and will be held at the Sheraton Raleigh Hotel, in Raleigh, N.C.

As my articles in this Newsletter typically address “Public Issues”, why you may ask, is the mention of this tribute noteworthy as a public issue? I hope the following answers this question for you.

I came to know Dr. Watson when I was a young graduate student in the University of North Carolina at Chapel Hill Radiological Hygiene Program. Prior to enrolling, I had a couple of years experience in the practical field of Health Physics. But the foundational relationship that was established between me, the student, and Dr. Watson, the professor, would be of great benefit in the future.

After graduation and almost 4 years with Duke Energy, I began work with the N.C. Division of Radiation Protection, where I had the opportunity to support the N.C. Radiation Protection Commission and the Low-level Radioactive Waste Management Committee (LLRWMC). The primary purpose of this Committee, at that point in time, was the development of new rules for the State of NC specific to the proposed North Carolina Low-Level Radioactive Waste Disposal Facility. Needless to say, as many of you recall, this was a highly controversial issue at that time. If you attended some of the highly charged N.C. Low-level Radioactive Waste Management Authority meetings on this issue, then yes, you would say that I am putting it lightly.

Dr. Watson, however, chaired the N.C. Radiation Protection Commission’s LLRWMC. His leadership, along with Dayne Brown and Mel Fry, led to a protocol where openness and an opportunity to comment and contribute was the norm. The “public” had a say, but science, common sense and practical experience led the way. I found Dr. Watson’s mannerisms to be nothing but professional, in what I call an unyielding openness, others coined the phrase “velvet hammer” and he was in all instances a southern gentleman.

So why, you may say, is a tribute to Dr. Watson at a NCHPS Chapter meeting a public issue? Because, in no better fashion, Dr. Watson led our State through one of the most significant health physics issues to date. In dealing with the public and allowing concerns to be heard, he then worked towards resolution in a manner not necessarily agreed upon by all, but understood by all. The new rules were successfully approved and put in place in a timely fashion. Many have said that only Dr. Watson could pull this off. It was a wonderful sight to see.
Update from a Regulator’s Point of View
By W. Lee Cox, III, Acting Chief; Radiation Protection Section

The Radiation Protection Section in the N.C. Division of Environmental Health has had an interesting year. Next year will be no different, bringing many changes for the section and for its customers.

The first change will be increased fees for X-ray registrants in FY 2010-2011 as written into law by the NC Legislature. The fees will vary from $120 to $360 depending on the type of facility and the first X-ray tube or piece of X-ray equipment. Additional X-ray tubes or pieces of X-ray equipment will vary from $20 to $40 depending on the category of facility.

The second change will be an increased focus on rules revisions for X-ray and radioactive material licenses. X-ray will include changes to industrial, analytical and healing arts rules. Specifically, Section .0500 (Industrial Use) includes definitions and text updates based on the Suggested State Regulations and the N.C. Radiation Protection Commission Working Group. There is an added Industrial Gauge section, and the Radiation Machines section has been expanded to separate industrial X-ray from radioactive material industrial radiographers.

Other anticipated changes include enhancement of the section’s enforcement program to focus on repeat, habitual and willful offenders for swift and costly action. The section also plans to implement a safety culture approach to regulatory compliance across licensees and registrants encompassing health, safety and security. A safety culture includes an environment where personnel feel free to raise safety and security concerns without fear of retaliation as well as prompt and thorough identification, evaluation and resolution of those concerns.

One exciting long-term endeavor for 2010 will be the initial development of web-based licensing and registration as well as the ability for licensees to pay fees through an on-line payment tool. These features will be a wonderful addition for both the agency and its customers as it will promote quick, efficient and paperless means for conducting business.

As regulators, the section’s staff is responsible for enforcing the law in order to protect the health and safety of the public, occupational worker and environment from hazards associated with radiation exposure. You as the regulated community are responsible for complying with these laws. The system of promulgating rules gives you complete access to the process and encourages your participation.

As rules become out-dated and no longer relevant and as technology changes, your involvement and opinion are needed to facilitate changes that positively impact the industry while protecting public health. There is no one better qualified than this regulated community in understanding changing technology and relevancy. Your ideas are always welcomed, and change is on the horizon.

Science Teacher Workshop
By Dale Dusenbury

The Science Teacher’s workshop for this year on November 19, 2009 was held at the Khoury Convention Center in Greensboro, NC. The workshop was part of the Professional Develop Institute of the North Carolina Science Teacher’s Association.

The Chapter representatives were Dale Dusenbury and Roger Sit, who both staffed a booth in the exhibition hall. In keeping with previous years, the booth was shared with NCSU- in this case, the College of Engineering. The booth was also staffed with Lisa Marshall, Director of Outreach for the NCSU Nuclear Engineering Department along with Katherine Titus-Becker of the NCSU College of Engineering. When it was known that free survey meters were being given out, a good number of the teachers came by the booth. Between the Nuclear Engineering Department and the Chapter, total of 22 survey meters were given to the teachers at the booth. When the meters ran out, the teachers left their contact information to ship them meters after the conference.

The workshop presentation titled “Our Nuclear World” was given by Lisa Marshall from NC State and Dale Dusenbury from the chapter. The workshop scheduled from 12:30 – 1:30 and was attended by 12 teachers. Lisa Marshall presented a talk on the nuclear industry. They were very interactive, asking questions during and at the end of the talks. The questions were on a number of topics, everything from nuclear power stations (“Which type of reactor releases the most radiation?”) to environmental issues (“Which part of the state has the most radioactivity?”). A number of the attendees commented favorably about the presentations afterward and said they had learned a lot. After the talks, the nine “goody bags” with survey meters were given away as part of a drawing. Once again, teachers left contact information to allow a survey meter to be sent to them later. For upcoming workshops, it may be desirable to change the schedule for the presentations to be before or after the lunch break and possibly make the presentation time a little longer. The combination of outreach at the booth and the presentations was a success.
North Carolina Chapter of the Health Physics Society
2009-2010 “What is Radiation?”
Student Essay Competition

STUDENT NAME: ____________________________________________

TEACHER NAME: ____________________________________________

Name, Address, Phone Number of School:
________________________________________________________________________
________________________________________________________________________

Contest Rules:
- Must be a high school student enrolled in Earth Science, Chemistry, Physics or Environmental Sciences class(es).
- Original answers to the question, “What is ionizing radiation?” should be 300 words or less; original entries will not be returned to the student of teacher; ineligible entries will be disqualified (types entries are recommended): Citations/References required
- All entries must include this entry form and the essay to be considered
- All entries must be postmarked/email dated by February 26, 2010
- Qualified entries will be posted on a bulletin board and judged by the Health Physics Society members at the spring meeting, March 4-5, 2010, in Raleigh, North Carolina
- The prizes to be awarded are: $100 First place (for both student/teacher), $75 Second place (student only), $50 third place (student only)
- Prizes can be presented at the student/teacher’s school, with permission/invitation by the school’s administration
- All entries should be mailed to (postage paid): Amy Orders, Assistant Director NC State University, Environmental Health and Safety 2620 Wolf Village Way, CB 8007 Raleigh, NC 27695-8007
- Email entries are also welcome in MS Word or Adobe PDF to the email below.

For questions, please contact Amy Orders, Student Paper Competition Chair: 919.515.5208 or amy_orders@ncsu.edu
North Carolina Chapter of the Health Physics Society
2009-2010 Student Essay Competition

The 2009-2010 student paper competition, sponsored by the North Carolina Chapter of the Health Physics Society, is calling for papers from students (undergraduate, graduate, and post-doctorate), who are currently enrolled in an accredited institution of higher education 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 the paper or project:
NC HPS Student Essay Competition
C/O Amy Orders, Assistant Director
NC State University
2620 Wolf Village Way CB 8007
Raleigh, NC 27695-8007
OR email in a Word document, Powerpoint or PDF file to amy_orders@ncsu.edu

Competition:
- A review panel will select the best four papers. These students will be invited to present at the Spring Meeting of the Health Physics Society, March 4-5th, in Raleigh, NC. The committee reserves the right to select fewer than four student papers for presentation depending upon quality and/or quantity of submissions.
- Each student’s presentation will be limited to 20 minutes, with PowerPoint, slides and videos welcome. The competition winner will be announced at the conclusion of the meeting.

Prizes:
- Each student selected to present will receive free admission to the NCHPS meeting (one dinner, one breakfast included), one night stay at the meeting hotel and a certificate of participation.
- The best presentation, as determined by the student paper committee, will receive either $200 cash or $750 in reimbursement to the National Health Physics Society, as explained below.
  - If a winner is selected to present at the National Conference in Summer 2010, he/she will receive reimbursement of expenses, up to $750 to attend the meeting.
  - If not presenting at the national conference, the best presenter will receive a $200 check award.

All submissions must be post-marked by February 12, 2009. Selections for presenting will be made quickly for planning purposes!
A federal tabletop exercise entitled "Demon Deacon Thunder" was held in Winston-Salem on Wednesday, November 18, 2009. This event specifically focused on potential risks of radiological terrorism that exist at medical centers. The exercise scenario involved a protest from an animal rights organization at a research site that diverted the attention of police and security; at about the same time terrorists breached medical center security, significantly damaged critical infrastructure via explosives, removed a highly radioactive source, took hostages and threatened to blow up the source/kill the hostages unless their demands were met.

One hundred twenty-five people attended the exercise. Twenty-two "players" were chosen for crisis response and consequence management as the scenario unfolded; thirty-one "participants" from the same agencies as the players provided them with advice, policies, procedures and technical support. Fifty-two "observers" from other institutions were there to learn about these possible radiation risks and (hopefully) work on improving communication, safety and security at their facilities. Federal employees and contractors were responsible for creating and presenting the terrorism scenario. Exercise attendees were from the affected medical center, NC Radiation Protection Section, Department of Energy, private contractors, local and state Emergency Management, Homeland Security, Federal Bureau of Investigation, Civil Support Team (NC National Guard), Winston-Salem Police and Fire Departments, Forsyth County Sheriff's Office and Emergency Medical Services, NC Highway Patrol, public safety, local and area universities/medical centers.

The exercise helped to establish a better working relationship amongst first responders to an event and to make all personnel more aware of the threat of terrorism that exists in America today. Licensees must make all reasonable efforts to better secure these vital assets intended for beneficial research, diagnosis and therapeutic purposes.
NCHPS 2010 SPRING MEETING REGISTRATION FORM
March 4th & 5th, 2010

Sheraton Raleigh Hotel
421 S. Salisbury Street, Raleigh NC 27601

A block of rooms has been reserved for March 3rd & 4th at the rate of $92 per night excluding taxes.
Room reservation cut-off date is
February 1st, 2010.
Reservations code (North Carolina Chapter, Health Physics Society): 919-834-9400

Program
A tribute to Dr. James Watson Jr. with presentations by former students
Chapter Historical Presentation commemorating 45 years
Technical Presentations from all aspects of Health Physics

Professional Enrichment Program: "Radioactive Material Shipment Update Training" presented by Ben Edward, MS, CLSO, RRPT

Name for badge: (First) ___________________________ (Last) ___________________________
Affiliation (for badge): ___________________________
City: ___________________________ State: _______ Zip/Postal Code: _______
Business Phone: ___________________________ FAX: ___________________________
Email: _______________________________________

Preregistration Deadline is February 19th, 2009

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<th>Meeting Registration Fees</th>
<th>Preregistration (before February 19th)</th>
<th>Registration (after February 19th)</th>
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<tr>
<td>□ HPS, NCHPS, or other HPS Chapter member</td>
<td>$55</td>
<td>$60</td>
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<tr>
<td>□ Non-NCHPS, or HPS member</td>
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<td>□ Student</td>
<td>$15</td>
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<td>□ Guest Thursday Night Buffet (per person)</td>
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| □ PEP Course: Radioactive Material Shipping Update Thursday March 4th, 8am - noon | $50 | $55 |
| Students - $10 | | Students- $10 |

Total Endosed:
□ I do not wish my contact information published on attendee roster

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
Affiliates:
Radiation Safety and Control Services, Jay Tarzia
91 Portsmouth Ave, Stratham, NH 03885
(800) 525-8339

Protean Instruments
Corporation, Darrell Scoggins
231 Rayburn Pkwy, Lenoir City, TN 37771
(865) 717-3456

Thermo Scientific, David Nice
303 Wingcup Way, Simpsonville, SC 29680
Tel: (864) 963-7996 Cell: (864) 610-9703

Bionomics Inc, John McCormick
PO Box 817, Kingston, TN 37763
(865) 220-8501

Laurus System Inc., Laura Lynch
801 Autumn Hill Drive, Ellicott City, MD 21043
(410) 465-5558

PerkinElmer Life Sciences, Julie Ginsler
218 Parkridge Drive, Clayton, NC 27520
P: (919) 553-4698 C: (919) 522-6741

Wm B. Johnson & Assoc., Dick Landfried
PO Box 472, Ronceverte, WV 24970
(304) 645-6568

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

Mirion Technologies, Terry C. Moore
1924 Falling Creek Circle, Mt. Pleasant, SC 29464
P: (843) 849-9093 C: (843) 991-5291

Canberra Industries, Ron Vermilye
800 Research Parkway, Meriden, CT 06450
(800) 243-3955

DEQ Technical Sales, Ray McPhillips & Mike Shepherd
7767 Maida Vale Circle, Powell, TN 37849
865-621-5123 (cell) 865-947-5123 (office)

Philomatech, Ltd, Annette Hanson
PO Box 4949, Oak Ridge, TN 37830
(865) 483-1551

Dade Moeller & Associates, Ellis Jackson
3525 Walton Way Ext, Augusta, GA 30809
(706) 736-1725

Amersphysics, LLC, Tom Hansen
11634 Turkey Creek Rd, Knoxville, TN 37934
(865) 228-1997

Landauer Inc, Tony Piscitello
2 Science Rd, Glenwood, IL 60425
(800) 323-8830

F&J Specialty Products, Inc., Frank Gavila
404 Cypress Road, Ocala, FL 34472
(352) 680-1177 fax (352) 680-1454
fandj@fjspecialty.com

Chase Environmental, John O’Neil
11450 Watterson Ct., Louisville, KY 40299
(859) 584-0833

MHF Logistical Solutions, Inc, Eric Vegley
801 Cranberry Woods Dr, Suite 405
Cranberry Township, PA 16066
(724) 772-5800

Perma-Fix, Stephen J. Vodila
(865) 228-9866
sjvodila@perma-fix.com

Thanks to Our Affiliates!

NC TOREV - North Carolinas
Statewide Team of Radiological Volunteers

Volunteers needed for the TOREV Committee!

New TOREV Coordinator – Dale Dusenbury NC DENR 919-571-4141 ext. 249

TOREV Volunteer Upcoming events: NC DENR/ NC HPS TOREV Drill:
March 9, 2010 Western region – Catawba McGuire Nuclear Power Plant.
June 22, 2010: Brunswick Nuclear Power Plant

Update on TOREV: 2009-2010

TOREV volunteers are NOW needed for the 2010 NC DENR EREB emergency response preparedness exercises... If interested please email Dale.Dusenbury@ncdenr.gov.

Dale Dusenbury is the new TOREV Coordinator. Please feel free to contact Dale if you have any questions or would like to sign up for the upcoming Exercise Drills... 919-571-4141 ext. 249

A TOREV Committee is now being formed: A big thanks to Roger Sit and Gerry Wicks for volunteering for this committee. We would like to have additional volunteers for the TOREV Committee... If interested please contact Dale Dusenbury@919-571-4141 ext 249

Dale is currently completing a grant application for radiological volunteer development which would propose to integrate the existing TOREV volunteer radiation monitoring programs TOREV and the Medical Reserve Corp (MRC).

Dawn Burke passed the TOREV Coordinator torch to Dale Dusenbury in Oct 2009. She is currently an active MRC volunteer and is also serving as the Chairperson for the CRCPD HS/ER-10 Task Force for Volunteer Development.

As an active TOREV Volunteer what would you be asked to do?

Why to consider participating in an annual Radiological Drill in your region:
• Enhance our states readiness/ Population Monitoring
• Share your knowledge
• Swing a meter to check for radiation levels – meet your teams
• Gamma Spec
• Liquid scintillation
• Logistical Planning and Processing

Happy Holidays to Everyone!
If you wish to contribute to the Chapter newsletter, please contact Wendy Woehr at 919-668-3155 or wendy.woehr@duke.edu

http://hpschapters.org/northcarolina/newsletter.php3

The newsletter is a publication of the North Carolina Chapter of the Health Physics Society