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Newsletter



NEW ENGLAND CHAPTER OF THE HEALTH PHYSICS SOCIETY

Volume XXXVIII No. 7
May 2002

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New England Chapter Health Physics Society

ANNUAL MEETING

Date: Thursday, June 6, 2002

Location: Westford Regency Conference Center, Westford MA

Time: 7:45-8:15 AM Registration/Continental Breakfast
8:15-11:30 AM Program
11:30-1:00 PM Buffet Lunch
1:00-1:30 PM Business Meeting
1:30-5:00 PM Program

Main Theme: ***Homeland Security and the Radiation Safety Professional***

Cost: \$55.00 Members, \$65.00 Guests, and \$30.00 Students

Registration Deadline is May 23, 2002.

Cancellations must be made before May 23rd, or you are responsible for payment.

Name: _____ Phone: _____

Mail registration (with check to NECHPS) to: Ed Maher
42 Tuttle Drive
Acton, Massachusetts 01720

OR E-Mail to Register: **efmaher@dukeengineering.com** or
edward.f.maher@verizon.net

OR Register online at **www.nechps.org**

OR call (978) 568-2785

DIRECTIONS TO WESTFORD REGENCY



Traveling North

On Interstate 495, take Exit 32 and turn right at the end of exit ramp. Proceed to the first intersection and turn right on Route 110 west. The Westford Regency is 1/4 mile on your right.

Traveling South

On Interstate 495, take Exit 32 and turn left at the end of the exit ramp. Proceed to the first intersection and turn right on Route 110 west. The Westford Regency is 1/4 mile on your right.

For additional information please call: (978)692-8200.

For Driving Directions from your location see:

<http://www.westfordregency.com/directio.htm>

Nominations for Chapter Year 2002-2003

Submitted by William Lorenzen

As required per Article VII Sections 1-2 of the Charter of the New England Chapter of the Health Physics Society (NECHPS), a Nominating Committee has been formed and nominees have been selected for all of the prospective vacant elective offices.

A Nomination and Election Committee has been formed per the requirements written in Article VI of the BY-LAWS of the NECHPS. The members of Nomination Committee are William A. Lorenzen-Chair, Bob Scott and Tom O'Connell.

Section 2 of Article VI of the BY-LAWS requires that the Nomination and Election Committee notify the membership of the nomination slate and of the provision for additional nominations per Section 3 of Article VI of the BY-LAWS no less than 45 days prior to the Chapter's Annual Meeting. The nomination slate for the prospective vacancies for the Chapter year 2001-2002 is as follows:

Margaret McCarthy	President-Elect
Elizabeth Brackett	Secretary
John Anderson, Jr.	Board of Directors-1 year term
Doug LaMay	Board of Directors- 2 year term
John Sumares	Board of Directors- 2 year term

The Nomination and Election Committee is required to accept additional nominations per Section 3 of Article VI of the Chapter BY-LAWS. Section 3 states that a petition naming the nominee or nominees for any or all vacancies can be submitted to the Nomination Committee. This petition must bear the signature of at least five chapter members in good standing. The petition must be submitted to the Nomination Committee no less than 30 days before the Chapter's Annual Meeting.

Petitions can be forwarded to William A. Lorenzen, 5 Cleveland Road, Waltham, MA 02453.

In Memoriam

John C. Collins- Past President

On January 20th, 2002, John C. Collins passed away at the age of 83. He is survived by his five children who all live in the New England area.

Jack had worked for many years as the Chief Engineer of the Massachusetts Department of Public Health and retired as the Director of the Massachusetts Department of Environmental Quality Engineering, currently know as the Department of Environmental Protection.

Jack was actively involved in the New England Chapter of the Health Physics Society. He was on the Board of Directors from 1960-63, held the position of President-Elect from 1963-64 and was the Chapter President during the 1964-65-chapter year.

As his years of service to the Chapter indicate, he was one of the individuals who laid down the foundation and pointed the Chapter towards the future.

His contributions to the betterment of our profession and the New England Chapter are duly noted in the history records of our Chapter.

STUDY: MOST IN U.S. EXPOSED TO NUCLEAR FALLOUT

Submitted by William Lorenzen

The New York Times - March 2, 2002

In a preliminary study that takes into account not only nuclear tests in Nevada but also nearly all American and Soviet nuclear tests conducted overseas before they were banned in 1963, the Centers for Disease Control and Prevention has found that virtually every person who has lived in the United States since 1951 has been exposed to radioactive fallout.

The new findings expand on ones from five years ago by the National Cancer Institute showing that people living in a long, plume-shaped region stretching from Idaho and Montana to the Mississippi River and beyond had a slightly higher risk of developing thyroid cancer because of the Nevada tests.

The new study, which was completed in August 2001 and first revealed yesterday in USA Today, suggests that for all Americans born after 1951 "all organs and tissues of the body have received some radiation exposure."

The study says in highly guarded terms that the global fallout could eventually be responsible for more than 11,000 cancer deaths in the United States.

But it says any medical implications are uncertain because the average American received almost 20 times as much radiation from medical procedures like chest X-rays as from fallout of all kinds over the same period.

Dr. Charles Miller, chief of the radiation-studies branch at the CDC's National Center for Environmental Health, said the report is merely a "feasibility study" that shows it is possible - should Congress request it - to carry out a full analysis of the health risks associated with above-ground nuclear testing.

Still, given the widespread exposures indicated by the study, its tentative conclusions show that the government has inadequately explained the

cancer risks from nuclear tests, said Sen. Tom Harkin, D-Iowa, who believes the follow-up research must be carried out.

"If the threat of exposure had been related to Americans sooner, early diagnosis and treatment may have saved many of these lives," said Harkin, who has seen four siblings die of cancer.

"The release of this report is long overdue."

The United States conducted more than 200 above-ground, or atmospheric, tests of nuclear weapons from 1951 to 1963, about half of those at the Nevada Test Site, 65 miles northwest of Las Vegas, and the others in the Marshall Islands and elsewhere in the Pacific Ocean.

Over the same period, the Soviet Union exploded some 200 nuclear weapons in tests on its own territory.

Such tests release radioactive iodine, which decays away in a matter of days, as well as longer-lived isotopes like radioactive cesium and strontium, which take many decades to disappear completely.

The previous study, by the National Cancer Institute, examined fallout patterns and cancer risks to Americans caused by the release of iodine from the Nevada tests. The CDC study also looked at exposures to long-lived radioactive elements. While the average exposure of an American because of the fallout is low, it increases each person's chance of developing cancer by a tiny amount, potentially leading to a larger number of deaths by cancer nationwide.

From the Vaults

Submitted by Tom O'Connell

Well, I did not receive one complaint (that I heard) in regards to the last *From the Vault* article that appeared in the chapter Newsletter, so here we go again.

Everyone has heard the expression "what goes around...comes around" and over the years it appears to me that the stock market, jobs and the economy are cyclic. Well, the focus and the efforts of our chapter are no different. There are topics and initiatives that have been undertaken by the Chapter that resurface again and again.

Education and training of individuals who may want to enter the health physics profession and those currently in the profession or may be required to respond to radiological events was evident during the chapter years 1964 and 1971.

In 1963-64, Dade Moeller, then the Chairman of the Committee on Certification and Education of the New England Chapter of the Health Physics Society, presented two symposia on "Careers in Health Physics" to high school students. The records indicate that the total attendance for the two half-day symposia was one hundred and fifty. I wonder how many of those who attended are currently employed in the health physics profession? The Chapter was very active in arranging interview appointments with Myron Fair at ten colleges in New England to explain the AEA Health Physics Fellowship Program. The committee also distributed approximately three hundred copies of the "Preparatory Manual for Certification as a Health Physicist". What a great effort to spread the knowledge.

In 1971, Charlie Killian was the President of the New England Chapter of the Health Physics Society. In the November edition (Volume 8 Number 1) of the Chapter Newsletter there was a President's Message that sort of wrapped up the notion of the cyclic nature of things, especially with the need for terrorism response training that is being conducted in 2002.

The message was simple yet demonstrates that Charlie is a pundit:

"My goal as a professional in this field is to contribute toward the training of the people who may be involved with radioactive materials. This interest goes beyond the Health Physicist or the Environmentalist. It focuses on the young doctor, hospital personnel, the truck driver, the policeman, the fireman, the nurse and the young people now studying in our schools. These are the people who may someday be involved in a radiation incident; and these are the people who should be properly prepared..."

Hmmm...well done, well said and something to mull over.

Membership Dues

Members are reminded that they should pay their dues *as soon as possible* to ensure that membership status remains in good standing. You may check your dues status by looking at the mailing label attached to this newsletter - the label will have a statement in the upper right corner: "Paid thru July 2002", for example.

Remember that the current By-Laws state that dues are \$10.00 per year, however, a payment of \$40.00 will get a member 5 years of Chapter membership.

Please send your payment to Ron Thurlow, NECHPS Treasurer, 21 Myrtle Ave, Newburyport, MA, 01950. Dues are always accepted and payable at the Chapter's technical meetings.

We stand corrected...

Letter to the editor submitted by Cornelius O'Leary

In the article on page 5 of the April 2002 Newsletter, "Study: 1950s nuclear fallout worse than thought", the sixth paragraph is not correct as far as the New England states are concerned. In the '50s the radiation programs were in the State Department of Public Health with the exception of Vermont, as I recall. There was formed a New England Radiological Health Compact, one of many Compacts in this part of the country. In any case one of the programs was to alert farmers when to put cows on stored hay if the fallout pattern was headed toward New England. The federal agency that provided the tracking of the radioactive plume and advice to the State agencies was the United States Public Health Service. The program was carried on into the late 60's when the Chinese were conducting above ground testing and when there was venting from US testing.

In any case the NE Radiological Health Compact founders worked well together in designing and implementing this early warning program to protect milk supplies. The record should be set straight that in the 1950's State Public Health Officials had taken protective action measures that were related to radioactive fallout patterns.

Member Emeritus,
Cornelius J. O'Leary
Former Public Health and Environmental
Protection Official
Commonwealth of Massachusetts

...Got a job? Need one?

Associate Radiation Safety Officer Children's Hospital Boston

Under general supervision and following established policies and procedures, provides operational and management support to the Radiation Safety Officer (RSO), in fulfilling the requirements of the Hospital's radiation safety program. Program areas include: Worker training; State licensing; PI authorizations; Worker exposure monitoring; Safety surveys; Waste disposal; Radiation detection instrumentation calibration; Environmental monitoring; Material inventory; Radioactive package receipt. Also supports the Hospital Radiation Safety Committee.

Requires a college degree in physics or science, advanced degree or course work at the graduate level a plus. Demonstrated computer and analytical skills are required (Microsoft Access a plus). Must have excellent communication skills with a minimum of two years experience in a service oriented environment.

Send Resumes to:

William A. Lorenzen, MS
Radiation Safety Officer
Children's Hospital Boston
300 Longwood Ave
Boston, Massachusetts 02115

Or by E-mail to:

william.lorenzen@tch.harvard.edu

LOOKING FOR INTERNSHIP POSSIBILITIES

Submitted by Margaret E McCarthy, Department of Environmental Health, UMass/Amherst

The School of Public Health and Health Sciences offers Masters Degrees [MPH, MS] in Environmental Health Sciences. As per the School's accreditation requirements, graduate students have a core of material to master such as biostatistics, epidemiology, calculation methods, toxicology, and health education, plus other areas. Most of the students are in their mid to late twenties and a few are older. For their degree, a practice experience is a requirement, a minimum of 200 hours in a related field for completion of this degree. A related field can be biological or chemical compliance and is not limited to radiation.

Amherst is a bus ride from Boston and most students have their own transportation. Most students receive compensation for the practice experience. The Practice Experience Supervisor has a formal opportunity to evaluate the students performance. The time frame for the Practice Experience is somewhat flexible, but usually occurs in the summer and occasionally during the academic year. Full time positions are preferred. Occasionally students finish course requirements in August and are available for a Practice Experience during the Fall semester.

There are many advantages to hiring a University of Massachusetts industrial hygiene major for the summer. It represents an opportunity to:

- Utilize summer employees that have the basic industrial hygiene skills.
- Save your company the cost of training a new employee in basic industrial hygiene.
- Save your company the cost of recruiting efforts.
- Work with employees who are eager to learn.
- Teach and earn ABIH certification maintenance points.
- Work with prospective employees in a day to day supervisory situation.
- Eliminate backlogs in industrial hygiene activity.

The students eligible for summer employment have completed two semesters of graduate education. Most have completed the following courses:

- Principles of Occupational Health;
- Quantitative Methods in Environmental Health Science;
- Industrial Exhaust Ventilation Design;
- Industrial Hygiene Laboratory;
- Environmental and Occupational Toxicology;
- Introduction to Biostatistics;
- Principles of Epidemiology.
- Principles of Epidemiology.

The details of the Practice Experience is explained on the School of Public Health and Health Sciences web page at <http://www.umass.edu/sphhs/practice/index.html>

If you have a position, send it to me, and I shall then distribute it to interested graduate students.
mem@schoolph.umass.edu

Local Homeland Security - Radiation Training

By Tom O'Connell and Paul Ares

The March 2002 Edition of the *Health Physics Society Newsletter* had a number of articles on the topic of Homeland Security. Massachusetts, as well as other states, is focusing on and dedicating financial resources to Homeland Security issues. However, the focus of much of the terrorism training has been in the areas of chemical and biological response to terrorism.

Although various educational and training resources in the specific area of radiological response to terrorist attacks does exist, the information is widely scattered among various professional societies and government agencies. One thing that is apparent when one listens to potentially impacted response personnel is that there exists a great need for training and resource documents.

Massachusetts has taken a proactive stance in this area.

The Massachusetts Department of Public Health-Radiation Control Program (RCP) and Massachusetts Emergency Management Agency (MEMA) have always provided first responder training to interested parties. Both agencies have done so since the very early 1980s.

More recently, the RCP and MEMA have developed and have implemented a radiological training course for response to incidents involving radioactive materials (RAM) including discussions on potential radiological terrorism and the use of nuclear and weapons of mass destruction and radiological weapons of mass terror. MEMA has constructed a radiation detection response kit that would be able to support a two-person team for a three shift, twenty-four hour work period. Each kit contains three radiation detection instruments; direct reading dosimeters and personnel monitoring badges as well as manuals and resource documents.

The training modules include basic radiological health physics, types of RAM warning signs, visual recognition of the presence of RAM, the

types and use of radiological instrumentation to be issued to incident response groups, hands-on use of instrumentation utilizing training kits, personnel dosimetry and finally practical exercises using the instrument kits to measure radioactive sources of different types in order to get a feel for and recognized the pros and cons of using a particular radiation detection instrument.

Since September 2001, approximately 200 people have attended this training course. Attendees have included Massport Fire and Rescue, Boston Fire Department, Hazmat, Emergency Medical Services and Bomb Squad, MA State Police, MA DEP Emergency Response Units, Federal Reserve Bank of Boston, National Guard Military Civil Support Team, and the MA State Police Bomb Unit.

Continuing Education Units for Emergency Medical Technicians and Paramedics has also been obtained through the MA DPH Office of Emergency Medical Services.

The presentations are tailored to meet the needs of the individual response organization. A CD-ROM that contains the course presentations, as well as numerous reference documents, is made available to the response group that participates in the training.

Massachusetts has recognized that an interagency collaboration needs to take place in order to prepare for a response to an act of terrorism involving radiation. Also noted and recognized is the fact that any response will require a multi disciplined, multi agency approach in order to evaluate all of the hazards that may exist in an act of terrorism.

NECHPS Special Awards given out at the Rhode Island Science and Engineering Fair

Submitted by Ninni Jacob

The Rhode Island Science and Engineering Fair was held on March 16, 2002, at the Community College of Rhode Island (CCRI). NECHPS was invited to send judges for the fair. All the projects that were radiation -related (ionizing or non) were judged and two winners were chosen, one in the Senior Division and one in the Junior Division.

The winner in the Senior Division was Elizabeth Baker of Portsmouth High School for her project entitled: "The Effects of Ultraviolet C Radiation on Established Populations of E-coli". She was studying this in connection with food irradiation, to determine whether UV radiation could be used instead of gamma radiation. The winner in the Junior Division was Brennen Morton of Ponagansett Middle School for his project entitled: "Does Radiation Affect Bean Seeds?" He irradiated the bean seeds in a microwave oven for different times and measured and compared their relative growth.

The certificates were given out at the Awards Ceremony on March 21, where teachers, parents and students were present. I was able to give a brief description about the mission and activities of the Health Physics Society. I think this kind of publicity helps to raise people's awareness, and might lead to more on radiation - related projects next year.

The winners and their parents were invited to the dinner at the April NECHPS meeting in Providence, where the HPS President-Elect, John Frazier, presented them with the monetary awards of \$100 each.

Free Meetings?!

Yes, you *can* have something for practically nothing. All members who submit articles to the NECHPS Newsletter receive a FREE TICKET to an evening Chapter meeting. The articles must be of interest to the membership.

The ticket is valid one year from the date of issue and is valid for yourself or a guest; however, it is not valid for the Annual Meeting.

Send some ideas and get a few pennies for your thoughts! The submission deadline for publication in July's Newsletter is June 14; send articles to tbandini@partners.org.

Experts Wanted

The Massachusetts Radiation Control Program is seeking individuals interested in serving as volunteer consultants to the Radiation Control Program's Nuclear Incident Advisory Team (NIAT). NIAT is the emergency response action arm of Radiation Control Program that supplies twenty-four hour response to incidents within the Commonwealth involving radiation.

Individuals with expertise in all types of disciplines are needed to augment the existing network of expert radiation professionals who have volunteered to assist the NIAT in times of need.

If you are interested, please send a letter of interest, along with your resume to:

Robert M. Hallisey, Director
MA Radiation Control Program
174 Portland Street, 5th Floor
Boston, MA 02114