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In This Issue

The Birth of the HPS: A Look Back

The Society, the Profession, and the People Through the Eyes of J. Newell Stannard

Mary Walchuk

Have you heard of J. Newell Stannard? Born in 1910 in Owego, New York, the boy who once wanted to be a subway digger and young man who pondered a call to the ministry went on to become the man who is one of the most recognized and respected pioneers in the field of health physics.

Dr. Stannard has been an active member of the Health Physics Society (HPS) almost from the beginning, working as chairman of the committee on education and training during the Society's early years, member of the Board of Directors (1965-1971), president-elect (1968-1969), and president (1969-1970). He has received many honors from the HPS, including the Distinguished Scientific Achievement Award, the Founders Award, and the Fellow Award, and has an annual symposium series named for him—the J. Newell Stannard Lecture Series "Excellence in Radiation Protection" sponsored by the Sierra Nevada and Northern California HPS Chapters.

A University of Rochester Professor Emeritus, Newell is well known as a mentor to many health physicists, especially those who throughout the years attended the Rochester radiation biology graduate program. It was there during the late 40s and the 50s that he became a part of the team who recognized the importance of research work with radium, radon, plutonium, polonium, uranium, and other internal emitters that would become the main focus of his life's work. This research also drew him into the early animal studies to determine biological effects. As an expert in the internal emitter field he was a sought-after member of committees for nationally and internationally known scientific organizations such as the National Council on Radiation Protection and Measurements (NCRP) where he was one of the early contributors to Scientific Committee 1.

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Through the Eyes of Stannard

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This barely touches on the many contributions and achievements of Newell's life so far, but the focus for now is on the beginnings of the health physics field. Through recent interviews, his book *Radioactivity and Health: A History*, and his memoirs, Newell reflects on his memories of health physics and some of the pioneers, places, and programs that were so important and were a major part of the start of it all 50 years ago. Now join us in a look back through Newell's eyes and words.

Health Physics Programs and Places

Health Physics Society

The radiological societies very early developed ways to have input to the practices of radiation protection. Many had formal committees on the subject such as the standards committees of the Health Physics Society and the American Nuclear Society. In addition to general matters, these committees have contributed to, even worked in close collaboration with, federal groups to devise methodologies and philosophies for assessment, for example, in radionuclide bioassay.

The one society that has essentially been part of my life, ever since I joined it in 1957, is the Health Physics Society. I missed becoming a charter member by one year. I didn't know about the Society until the second meeting but I joined the Society then and have been an active member ever since.

Every president of the Society has to think of outstanding things that occurred during his administration. I would say that the outstanding thing that occurred during my presidency (1969-1970) was we finally got over our timidity about making public statements about the biological effects of radiation. Later on, in that year, we had some fairly interesting things happen in the Society; we did get out some more public relations statements and in general the Society became more outgoing in the public relations business and that's been true ever since, indeed greatly expanded.

The Health Physics Society continues to foster the development and application of practices that will ensure the safe uses of radiation.

Health Physics

Health physics, as a field, is a child of the World War II era. The scientists, particularly physicists, working with the development of the atomic bomb and the general expansion of atomic energy were very aware of the tremendous potential these new entities had for producing biological effects, some of them deleterious and some of them beneficial. Yet, at the time, no one could refer to what they were doing as having anything to do with radiation because of the high classification around the Manhattan District Program. It was almost a fetish with General Groves that they not say anything about radiation, so of course that put the kibosh on saying much about what they were actually doing and, yet, people wanted to call it something. The physicists who were the ones most concerned about the deleterious effects of the new radiation sources they were developing coined the term "Health Physicist" for those individuals most concerned with the health aspects of the new field.

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The University of Rochester Program

In 1947 I received a letter from one of my old friends at the University of Rochester where I had taught in the late 1930s. He told me that what had been the Atomic Energy Project during the war was now going to be set up as a graduate teaching program. The University of Rochester had been asked to set up a program in the new field of atomic energy as applied to the life sciences and would I be interested in returning to Rochester from my current job at NIH (National Institutes of Health) to help organize the Rochester program. I had missed being able to teach at the NIH and although I didn't know beans about atomic energy, the idea appealed to me greatly. In due course, Rochester made me an offer as Assistant Director for Education of the project and a faculty appointment as Assistant Professor of Radiation Biology.

There were three divisions in the project. A division of biophysics, headed by William F. Bale, worked largely on radioactive materials—for example, radium, radon, plutonium, and polonium. A division of pharmacology, headed by Harold Hodge, was the headquarters for the huge effort on uranium, including inhalation. A medical division was more clinically oriented. Radiation protection for the project was supplied through Herb Mermagen, who was then called a radiological physicist (now he would be called a health physicist).

The postwar Rochester project did much more than the internal emitter research and inhalation toxicology. It was a center for graduate education in the new field of atomic energy as applied to biology and medicine. Rochester also carried out much basic research in cellular radiobiology and general biophysics.

The University of Rochester gave

the first PhD in radiation biology in the world. That was to my first graduate student, William J. Bair, who has continued to be a close associate and friend, ever since.

In July of 2003, which was just yesterday, in the time frame of these recollections, the Society held its annual meeting in San Diego and took the occasion on one afternoon, primarily through the efforts of my first and second graduate students, Bill Bair and Bob Thomas, to have an afternoon scientific session titled "J. Newell Stannard and the University of Rochester" (http://hps.org/documents/nstannardpapers.pdf). It took all afternoon and it was a real joy. All the papers were given by former students; most of them discussed work that got started during their tenure as students at Rochester. I gave a short introduction on how the Atomic Energy Project grew, what it was and what it wasn't. I must say that I felt greatly rejuvenated by the end of that session and am mighty grateful to have so many friends and associates in the Society.

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The Postwar Animal Studies

During the several years fairly soon after the end of World War II the Atomic Energy Commission embarked on really long-term radionuclide studies in animals, particularly with alpha emitters. These have only recently come to a conclusion.

An extensive postwar experiment with animals at Rochester was a long-term inhalation project. The purpose was both the determination of retention and "metabolism" and potential development of long-term effects in the lung and accessory respiratory structures.

The 11-year-long chronic exposure experiment was like the "king-sized" experiments conducted elsewhere in the postwar years. The exposures were to UO_2 dust, five days per week for up to five years. Deposition, retention, excretions, and short- and long-term effects were observed in a variety of species for up to six additional years, as well as during the exposure period.

The purpose was to see if uranium dust would produce lung cancer if the exposure was long enough or severe enough. As you know, uranium (natural uranium) is a very weak radioactive substance, nothing like the alpha emitters polonium or plutonium. They stuffed the animals with enough uranium so the lungs were black. Finally after I don't know how many years of exposure, they did get a few lung cancers. However the work certainly said that natural uranium was not a major hazard from the standpoint of lung cancer.

Internal Emitters

In the years immediately following World War II, there was a considerable flurry of activity on developing standards for radiation exposure, both external and for deposited radionuclides, which we call "internal emitters."

The National Academy of Sciences and National Research Council set up committees to examine details of the biological effects of radiation. The first phase was a group of committees, all subcommittees of the committee on the Pathologic Effects of Ionizing Radiation. This was a fairly broad-based committee. There were some subcommittees for internal emitters and I was a member of two of them as I recall; one was a committee concerned primarily with inhalation problems and the other committee was concerned primarily with the dosimetry, distribution, and excretion and protection against exposure to radioisotopes in the body.

I was also chair of the NCRP committee called Internal Emitter Standards, which existed for almost 20 years. Task groups of the committee covered a large range of the important problems—the respiratory tract model, general metabolic models, gastrointestinal tract models, bone problems, leukemia risk, lung cancer risk, liver cancer risk, genetic risk, and statements of risk from deposited radionuclides, strontium, neptunium. Fairly recently some more reports have come out.

One thing led to another and I wrote a book which I've called the "Big Red Book," a comprehensive history of work on internal emitters, particularly in the United States. The title of it finally turned out to be *Radioactivity and Health: A History* and it was a 10-year job.

At many points in these remarks I've alluded to the long-term animal studies. In addition to the Rochester work on long-term effects of uranium, there were many substantial studies on other radionuclides, especially the actinides. These were done primarily at the national laboratories. They will remain as outstanding examples of "planned sciences" that were very successful.

Health Physics Pioneers

William Bale

Bill Bale was at Rochester my first year. He was head of the Biophysics Division at Rochester and had already become well established in the field. I was particularly interested in finding out some details of his work with radon and was among those to hear fairly early his ideas about the role of the radon daughter

products in inducing lung cancers.

My first impression of him was that he was a typical absentminded professor, and I would say Bill Bale really represented the first generation of academic health physicists. He was involved with nearly every step along the way. He knew what was going on in his division probably as well as or better than anybody in the project.

One most notable contribution that he made besides organizing his division was the early development of a kind of a syllabus to teach radiation protection. Bill never got very hot under the collar about radiation protection because he knew what we were working with was a negligible hazard next to some of the things they were working near and he made it perfectly clear. Now I'd say that Bill's impact was more on medical health physics and protection in the laboratory.

. . . Bill Bale really represented the first generation of academic health physicists.

Marshall Brucer

Marshall Brucer is one of the real old timers and was primarily at Oak Ridge. He was very much the academic type. I don't think he ever made a false motion in his programs. He was not a person to indulge in much small talk and he was a jitterbug. It was hard to get him to sit still long enough to answer a question, but there's no question that he helped establish a firm bond between radiological physics and health physics.

When we depict the three naturally occurring series of radioisotopes, we seldom pause to pay tribute to those who devoted whole careers to unraveling the natural decay series. Marshall described a part of the process, including the sometimes arguments among the radiochemists: Hahn and Boltwood, for example, could agree only on the quality of Munich beer, which they longed for while working temporarily in the New World with Ernest Rutherford at Montreal.

Austin Brues

Austin was the director of the Division of Biology and Medicine at Argonne National Laboratory which included the radiation protection program. Most of you couldn't help but know Austin through one contact or another because he was very active in the radiation research field. He was one of the relatively few in the internal emitter field and he had a lot to do with the Argonne radium study in helping to establish the doses. He represented the whole field really. He and Robley Evans were the pilots in the internal emitter field. He was very handy at thinking up terms and using a word that was just right for a given activity.

Austin was pretty much an idea man. In fact, he's probably one reason we finally got a standard for plutonium that other people would buy or for radium and the radium daughter products. The committees that were trying to set standards were within the ICRP or NCRP and the American side didn't have a great deal of depth, but the people who did give it depth were very good and Austin was one of them. He could take a puzzle and go back as far as he could go toward the basics and he'd come up with something in there that showed a perfectly logical way that the substance at hand fit into the scheme. The standard for plutonium was a terrible job for anybody to do but they finally decided that, doggone it, they were going to have a standard for plutonium and it was going to be one that would hold. So that's what they did, but they kept coming up with these blocks in the way and Austin was always the one who would come out with a perfectly reasonable trick that would get the ball rolling again. That was one of the times when they ended up with the 40 nanocurie body burden for plutonium-239.

David Bruner

Dave was a military type and he didn't want to be bothered in general with minutiae; he wanted to make the grand decision and go on to something else but most of the scientists weren't built that way. They'd say, "Wait a minute, where'd you get that?" "Oh, I got it out of such and such." Here's a man who wanted the answers and it was likely that he'd get them, but he kept his eye quite steadily on where he was going in his thought processes. He was a stickler for, relatively speaking, accuracy.

My clearest recollection of Dave was in connection with some of the decisions in the internal emitter field. He and some others did quite a bit to clear up the verbiage and tied some of the subfields together and Bruner, Brues, Bale, and others were pretty much bringing order out of chaos at the same time in the internal emitter field.

I'd say he was very much responsible for some of the things that broke the logjam on the plutonium standard and he played a big role in starting the life-span dog studies.

Leo Bustad

Leo was a veterinarian and he was connected with the veterinary school at Washington State University and he was a very good scientist. I first met him in Richland when he took part in a program there. I think his impact on the field of health physics was very significant. Many concepts that we just take for granted now, if you trace them back they went back to

Leo Bustad.

I remember what a patient guy he was. They had cormorants that were around the reservation and we put tags on them and got information on who was who. There weren't too many cormorants but Leo was a very good animal handler and he could catch one of these buzzards that was interfering with the progress. They had very short tempers and, boy, they really beat up on him. He had to go back to the platform where everything was and get some protective clothing.

In the Health Physics Society he helped them to not take themselves too seriously. He could make a peculiar incident into a strikingly funny event just by the way he looked at it. He was able to make a slightly funny situation uproarious; he was an excellent imitator of songs and so on. They were always trying to get him for an after-dinner speaker. You probably heard some joke or at least comic sayings that were cooked up by this guy but you don't realize how much really good sound science is behind those quips. I always felt very close to Leo. I'm sorry he's gone.

George Casarett

I met George in Rochester when I was just starting out. George had been there for quite a while and he'd gotten a PhD in anatomy and then he became a pathologist and he stayed a pathologist throughout his career. George took pity on me as a guy who never touched a radioactive atom knowingly. He went to work quite a lot of afternoons and some evenings simply showing me the ropes. I've always been very grateful to George because he and John Hursh broke me in so to speak.

George and I worked together for six years on the polonium project and I would say George was the typical pathologist. One thing I couldn't forget about George, nobody could, was he was a very good pathologist but he could never say anything in a simple way; George always used very technical language and very long sentences. But if you read them you found that they were very accurate.

Of course, one can't help but feel sad and bristle at the same time at his smoking. Because George, a pathologist, a radiological physicist, just like so many others in the medical profession we know, could just never back off from the cigarettes. I'm sure it's partly because there was such a stressful environment.

George took pity on me as a guy who never touched a radioactive atom knowingly.

George and I went to Japan together to teach a course on radioisotope technology at the National Institute of Radiological Sciences in Chiba City and his treatment of that experience was very different from mine. I was terribly involved in what we were doing and waiting for some indication of the Japanese being mad at us. (We never had a single incident. And George was very frequently the reason.) I also remember when we arrived at the Institute, first we got fitted for our slippers. They had a terrible time with George, who wore a size 13 shoe. Herb Mermagen gave them hysterics when he suggested that what they really needed for George was to get two junks out of the Tokyo Harbor and let him use those as slippers.

Walter Claus

My strongest contact with Walter, who worked at the Atomic Energy Commission (AEC) Division of Biology and Medicine, was in the education program. Soon after the beginning of the programs at Rochester-Brookhaven and Vanderbilt-Oak Ridge, it became apparent that the AEC was planning to take an active part in education and training in the new field of atomic energy. A substantial advisory committee—consisting of academic types, representatives of the AEC and other governmental bodies, and industry—was formed rather quickly. They had broad responsibilities for the development and operation of various educational programs, supported financially and with personnel by the AEC and functioning under the Division of Biology of Medicine of the AEC. It was my pleasure to serve as chairman of that committee for four years and Walter, a biophysicist, was a member.

He was also involved with the fellowship program. As a hands-on group, each fellowship program had a board that examined all the applications for a fellowship. Walter was a member of the Health Physics Fellowship Board at Oak Ridge.

Merril Eisenbud

Merril comes into the picture as the director of the academic program at New York University (NYU). The Institute of Environmental Medicine at NYU has had a strong general aerosol science component in its operations throughout its existence. With this we associate names like Merril, who came to NYU from the AEC Health and Safety Laboratory (HASL) in New York with much experience in the problems of inhalation of uranium and beryllium dusts.

After the exposure of Japanese fisherman on the boat Fukuryo Maru No. 5 (Lucky Dragon) to fallout from the explosion of an experimental thermonuclear device on Bikini Atoll in the Marshall Islands in March 1954, Merril (then

head of the HASL, which had primary responsibilities for monitoring fallout) was one of the first Americans to reach Japan after the incident. When he arrived, he was met by an angry mob and for a while feared for his life. However, cooler heads prevailed, and, while there was need for much diplomacy on both sides, the Japanese dedication to good science predominated, and work began immediately to characterize and quantitate the situation.

In 1963, Eisenbud produced the first edition of his succinct and enormously useful book *Environmental Radioactivity*, which was one of the forces that contributed to the maturation of radioecology in the United States.

Robley Evans

Robley was really the heart of that whole MIT (Massachusetts Institute of Technology) program with radium. He was a real academic type. I think he was probably, of all the people on this list, the most typically academic. He was always looking at the science. He was more questioning of results and curious about results as to what they meant and what ought to be done, kind of looking ahead. He was the top of the list.

Robley was a towering figure in the field of radium toxicology (indeed of all radiation toxicology).

Robley was a towering figure in the field of radium toxicology (indeed of all radiation toxicology). He was a physicist with profound interest in and understanding of biology. Throughout his career, he was part of singularly symbiotic associations of physicians, dentists, physicists, chemists, biologists, even epidemiologists, where no one lost his identity, but the whole has been much more than the sum of its parts. The way he got "invited" into the radium field is interesting and worth repeating, for he was doing Simon-pure physics and geophysics at the time, related to radioactivity from natural sources.

In 1932, a prominent Pennsylvania business tycoon named Eben Byers, president of Byers Steel, died from the effects of slavish devotion to the nostrum "Radithor." Radithor was certified to contain 1 µCi of ^{226}Ra and 1 µCi of ^{228}Ra (radiothorium) per half-ounce bottle. Mr. Byers had devotedly taken four bottles per day for a considerable period! It perhaps did have the often-described initial stimulatory effect of radiation and radium, but it brought Mr. Byers down with classic radium poisoning.

Perhaps it was because Mr. Byers was national Amateur Golf Champion, as well as a very popular bachelor and well-known industrialist, but, for whatever reason, his death brought spreads in the national press, including a relatively new magazine called *Time*. The Los Angeles County Health Department recoiled at the idea that such things might happen in California. They sent an emissary to Robert Millikan, well-known physicist at Cal Tech and Evans's boss and thesis advisor. Millikan brought the representative to Evans with some remarks to the effect that here was a man interested in radium and left him with the remark, "You do what this man tells you." Thus, by a fortunate coincidence, began one of the longest and most productive careers in American radiation science and the toxicology of deposited radionuclides.

Louis Hempelmann

Louis was involved in the radium studies with Robley Evans at MIT first. Then he worked at Los Alamos during the war where he was in the middle of the plutonium debate. He did some of the medical follow-up on the plutonium-exposed people. It wasn't an all-time, all-consuming job. He then settled in Rochester where he was in the department of radiology—well, I'm giving it the name. They would never give it the name. They were doing air samples and urinalyses and things of that sort. Louis pretty much ran his own show and he wasn't an empire builder. I didn't know for a long time how much he had to do with the radium story. He just did his bit.

Louis remarked that we can be thankful indeed that plutonium is much less soluble in the gut and less transportable than radium. Except for that, we might easily be now studying a population of exposed individuals with health effects comparable to those from radium.

In the early 1950s Louis was part of the medical team at Harvard-Massachusetts General Hospital, which did the clinical work-ups on the MIT patients. Robley and Louis had been musing on the many unexplained differences among the dial painters and Radithor drinkers compared to the radium patients and chemists. The possible contributions of MsTh (mesothorium) were, of course, much on their minds, but they had not been able to be quantitative. Indeed the data were very unsatisfactory.

By the time of this incident, Louis had moved to Rochester but was still much involved with the radium work. He was at home one cold day enjoying a hot postexercise shower when he received a message that Dr. Evans wanted him on the telephone. Wrapping a towel about his middle, he proceeded to the phone to find Robley ecstatic over the way the now-measurable mesothorium content explained many of the differences. The enthusiasm lasted for one and a half hours and might have gone on longer except for the noise of Louis' teeth chattering!

Harold Hodge

Harold was professor of pharmacology and toxicology at the University of Rochester Medical Center. He was always looking at toxicology and you couldn't blame him because he was a toxicologist, but I think that he especially respected uranium in all of its forms. Harold always had a great deal of enthusiasm for his people and what they were doing but when the groups began to kind of differentiate, Harold made a big point of pulling them together even though they were often not of the same temperament. He was also a good teacher. Although he was also interested in chemical toxicology, he had a good appreciation of the radiation side of it too. When somebody from Harold's place came you could be sure that the low-specific-activity isotopes got plenty of attention, mostly uranium and thorium. I think we have to remember that during that time Harold was teaching the medical course in pharmacology to the medical students. Everybody in his group had some contact with "the course."

One of the interesting things about Harold and his connection with all the human radiation experiments was that while he was doing all these things at Rochester he was getting all keyed up about fluoride and I guess he more or less personally pulled the lever for starting to put fluoride into the drinking water. I'll always remember one of the stories mentioned with that—they had a big story in the newspaper saying one of the great things about the scientists getting fluoride is that the upland water supply would have fluoride. They had everything all ready to start the program a certain morning and by 10 o'clock that morning the phones in Washington were ringing, people saying they were sick and they thought it was from the fluoride that had been added to their drinking water. It turned out that the machine had broken down that morning and they had never added any fluoride.

Duncan Holaday

Duncan I think deserves to be characterized here. He was a classical industrial hygienist. The rapid expansion of uranium mining in the US Colorado Plateau region in the late 1940s and early 1950 led to requests for assistance in evaluating the mines. Among the first to respond were people from the US Public Health Service (PHS), including Duncan, an industrial hygiene engineer in the PHS who essentially spent the rest of his career with the uranium miners and radon problems. He had an important part in every technical study, except the purely medical evaluations.

Wright . . . was identified with all aspects of plutonium biology to the extent that he was frequently regarded as "Mr. Plutonium" . . .

Duncan went at the community of miners story just the way you do for a typical industrial hygiene story and he wrote what was probably the most definitive paper on the uranium miners in that period.

Uranium, Plutonium and Transplutonic Elements was a book in the series *The Handbook of Experimental Pharmacology* that was put out annually over many years. It was intended to be a summary to date of essentially all the biomedical work done on these subjects. It was done primarily by a series of chapters, which were coordinated by the editor for that section of the book. The chapter "Uranium Mining Hazards" was written by Duncan, who probably had as much to do with the earlier work on uranium miners as anyone.

He was the first recipient of the Distinguished Achievement Award of the Health Physics Society at its meeting in June 1968.

Wright Langham

The names we immediately associate with Los Alamos in the postwar years are of those who had most to do with the internal emitter research, including Wright Langham.

Wright, who brought infinite patience to the characterization of plutonium excretion in humans and animals, was identified with all aspects of plutonium biology to the extent that he was frequently regarded as "Mr. Plutonium" in postwar biomedical circles. He was a central figure in the bioassay work at the Los Alamos Scientific Laboratory during the war years. He came to Rochester to supervise the handling of the plutonium and general planning. He was part of the group called "The Founding Fathers" of the Utah Project and the Davis Project.

Langham, in collaboration with Jack Healy, wrote Chapter 12 in *Uranium, Plutonium and Transplutonic Elements*. Titled "Maximum Permissible Body Burdens and Concentrations of Plutonium, Biological Basis and History of Development," this is a classic chapter which describes in-depth the reasoning behind the decisions made by the people who had the most to do with it. That was written about two years before Wright's death in a commuter plane accident, going from the Albuquerque airport to Los Alamos. On that basis, the entire book was dedicated to the memory of Wright Langham.

Herbert M. Parker

Chapter 14 of the book *Uranium, Plutonium and Transplutonic Elements* was called "Plutonium, Industrial Hygiene, Health Physics and Related Aspects" and was

written by Herb Parker, who was the manager of the Hanford Laboratories that had the most to do with the commercial production of plutonium and stands as a paragon in the field.

My introduction to the NCRP and its work was at a very propitious time. After I'd been at Rochester a few years, I was asked if I was interested in joining the NCRP and I indicated positively. Shortly, they asked me to join in a report they were preparing on basic radiation protection criteria. It was being done by Committee 1. Of all the committees of NCRP, Committee 1 stands as the blue ribbon committee in terms of the personnel involved and the general significance of the subject. Committee 1, at the time I was asked to join it, had already started on its work and it was chaired by Herb, of the Hanford Operation, who was very much a philosopher as well as a scientist, and Lauriston Taylor, president of NCRP, and others with much experience. It was a real experience to work with a group chaired by these dynamos.

Glenn Seaborg

The final chapter in the book *Uranium, Plutonium and Transplutonic Elements* was written by Glenn T. Seaborg, who was at that time the chairman of the Atomic Energy Commission and a discoverer of plutonium and had been given a place of prominence in the history of all the actinide elements. Seaborg's chapter was called "Medical Uses: Americium-241; Californium-252." In many respects, that illustrates Glenn's development of interest in the medical aspects of the development and use of the actinide elements. Since this book went into almost all the medical school libraries around the world, we were very pleased, for we had the feeling that the history of work on these elements had been at least adequately and probably more than adequately summarized.

Glenn seemed to have had more concern for biomedical problems than did many physical scientists of the day. Perhaps that is because he was a chemist. (Chemists get interested in biochemistry and thus in biology.)

The story of the radium dial workers, patients, chemists, and others had made a deep impression on Glenn and others.

Glenn was very active in assuring that adequate safety standards were instituted. He sent a letter to the medical director of the Plutonium Project saying, "In addition to helping to set up safety measures in handling so as to prevent the occurrence of such accidents, I would like to suggest that a program to trace the course of plutonium in the body be initiated as soon as possible." This set the stage. The new element was biomedically similar to radium. The story of the radium dial workers, patients, chemists, and others had made a deep impression on Glenn and others. Laboratory modifications were instituted and the plant designs and working plans were adjusted to the philosophy that plutonium would be a very hazardous substance indeed.

Walter Snyder

Walter, of Oak Ridge National Laboratory, the dean of the calculators for internal emitter standards, produced several papers with his colleagues, just before his untimely death, on the doses from various scenarios of immersion in clouds of released gases.

Walter was Mr. Internal Emitter. He had quite a group at Oak Ridge—not really a big group but a very dedicated group that did some pretty important work. Walter did an awful lot in setting up the early internal emitter standards, the NBS (National Bureau of Standards) Handbook 52 and ICRP Report 2 and all those things. And then the reference man, the ICRP publication 23 which is a huge job that he did—amazing. When you look at the publications that came out of that effort you just have to stand in awe. Walter had a lot to do with the publications for the National Nuclear Energy series. He was one of those people who did a necessary job but not particularly a popular job. I think he edited most of the volumes in the biomedical series.

Walter was a valuable reviewer and advisor for the long-term dog studies. It clearly was a group that made radiobiology out of the long-term dog experiments. When Walter would come to a laboratory for program reviews he'd bring along their annual report and he had annotations on every page. You know most people would just carry it along and say well I've got to look at that some time but he actually read it and knew exactly what his questions were.

Walter was called "Mr. Internal Dosimetry" in his citation for the Distinguished Achievement Award of the Health Physics Society in 1975.

Lauriston Taylor

One man covered the entire period of our history in developing radiation protection standards. He was Lauriston Sale Taylor. Laurie was trained as a physicist and was doing radiation physics at the National Bureau of Standards in Washington, DC. He got involved in essentially every national and international action in the field, beginning with the acceptance of the roentgen as a unit for measuring ionizing radiation. The first standards were documents published as guidelines primarily for radiologists.

This was in 1928 and he was at the center of the field. He led the NCRP as president for many years and then was still actively involved until his death just recently at age 102.

Roy Thompson

I thought Roy was a trouble-maker when I first started to work with him. Mostly because of Roy's disagreeing with the language of the reports, really, but the more I worked with him the more I agreed with him. He wrote a book about the dog studies; he talked about the design of the studies but he didn't want to get into interpreting them.

Roy had a very important role in the long-term animal experiments. I'd say probably he took a more realistic view of what they could and couldn't do with the current data. And yet I always thought he kept a pretty close eye where the science was going. He did a nice job of summarizing where he thought they should be going in his book on the life-span dog studies. He was a great synthesizer. My contact with Roy started around the big dog experiments, and I was very pleased by the balanced view he took of what they were trying to do. He could say in a few words why we needed to do these experiments.

The information on the above topics was compiled and adapted from *The Memoirs of Dr. J. Newell Stannard*; *Radioactivity and Health: A History*; and interviews conducted on 12 and 13 April 2005 with Dr. Stannard by Dr. Bruce Boecker and Valerie Hoskins (who has been an assistant to the Stannards for over 25 years). Some parts are direct quotes, some are summaries of what was said or written, and some are both put together, all with the permission of Dr. J. Newell Stannard as a fair representation of his thoughts and reflections of those early times in the field of health physics.

The newsletter thanks Bruce Boecker and Valerie Hoskins for sharing their interviews of Newell with us. We especially want to thank Newell for his look back in time.

J. Newell Stannard and Bruce Boecker

Valerie Hoskins

"The Birth of the HPS: A Look Back" will continue in upcoming issues of *Health Physics News*. Look for more interviews with distinguished HPS members about the beginnings of the Health Physics Society.

Inside the Beltway

David Connolly
Washington Representative
Capitol Associates, Inc.

"Be careful for what you wish for, it may happen" is a somewhat new expression that has gotten more popular as the baby boomers have matured and gotten more affluent. As we have entered the 21st century, life has appeared to become more complicated because of the increase in the number of choices and opportunities we have as a society. Hence the attraction for the "wish for" expression.

One of the distinct pleasures of being an attorney (or as Representative Michael G. Oxley [R-OH] says "I am a recovering attorney" which applies to me) is the number of times you can learn something new and/or positive from your clients. Over the past number of weeks I had this pleasurable experience in my conversations with the Society's presidents and past presidents and Congressional Liaison Keith Dinger. They have been strident in their opinion that the Society must take advantage of the funding provided (that is, "wished for") by the Congress for fellowships, scholarships, and grants (such as the Environmental Protection Agency's STAR program). Although I certainly agree with them, their zeal on the point emboldens me to plead with members of the Society to spread the word about this funding to your colleagues, friends, relations, everyone and anyone who may influence a person to pursue the study of health physics and take advantage of these funding programs. For as we have said before and will continue to say in the future, if we do not use the money Congress has appropriated to the study of health physics, WE WILL LOSE IT! The demands on the federal treasury in these budget deficit times are too great to allow non-spending in programs; if the money is not spent on our issues, Congress will certainly move it and spend it on someone else's behalf. (On a selfish note, nothing makes a lobbyist's job easier than being able to go to a Member of Congress and point out to them how either a constituent or an institution back home has directly benefitted from federal education aid.)

One small but very effective way to spread the word about the educational opportunities available for future health physicists is through your local high school. A short letter or email to the school's guidance counselor about both the profession and the funding available to students will not go unnoticed or unpublicized.

Although most sectors of our economy have experienced low inflation over the past several years, higher education has not been one of them. Any prospective college parent will readily respond to any means to combat the steadily rising cost of college and post-graduate education. Inclusion in college prep materials is an effective way of spreading the word in a targeted manner to a potentially very responsive audience. Contained in these communications should be a link to the career section of the Society's Web site (http://hps.org/publicinformation/hpcareers.html) which will give school officials, parents, and students an excellent insight into the profession.

In the past few years, we have wished for federal funding and have received it. Let us all become as fervent on the education funding issue as our recent presidents and Keith and thus make my job as your legislative representative easier!

Editor's Note: *Health Physics News* will no longer publish the Agency News section. Members can get more detailed and more up-to-date information on the happenings that have a pertinence to radiation safety by going to our Health Physics Society (HPS) Web site (www.hps.org) "What's New" boxes on the home page or Members Only page. Web Associate Editor and Congressional and Agency Liaison Keith Dinger routinely posts items on our site that have major impacts on the profession or that are issues directly dealing with the HPS government relations program. Members who want to track their own news can use the links provided at http://hps.org/links.html.

Correspondence

Follow-Up to Tschaeche and Osborne Letters

Walter F. Wegst, PhD
Las Vegas, Nevada

As a follow-up to the letters of Al Tschaeche (*Health Physics News*, January 2005, p 5) and Richard Osborne (*Health Physics News*, April 2005, p 6) on the subject "A Safe Dichotomy," I would like to offer the following observations.

It is rather amazing and somewhat appalling to me that health physicists are still so ambivalent and afraid to state that some low level dose of radiation is "safe." Why is this, when we all know that living in Denver in a background radiation dose level on the order of twice that at sea level is certainly "safe"? There are, of course, many other areas in the world where there are viable, healthy populations that live in "safe" background dose rates much higher than Denver. Is it because many HPs influenced by the ICRP (International Commission on Radiological Protection) and NCRP (National Council on Radiation Protection and Measurements) actually believe in the LNT (linear no-threshold) and hence believe that ANY dose of radiation is unsafe? If so, then we should all move towards living in caves, as long as they are free of radon.

I have another idea as to why this issue of safe doses of radiation continues to be a problem for health physicists. Many years ago (30-35 years), as the NRC (Nuclear Regulatory Commission) and the various states were developing regulations governing the use of radiation and radioactive materials, many of my colleagues in health physics continually complained that the NRC was requiring them to meet certain license requirements, but would not tell them "How to do it." My answer was that it was their job to tell the regulatory agencies how they proposed to implement the safe use of radiation and radioactive material and then let the agency agree to the HPs' proposed method, or not. My colleagues did not want to do this for whatever reason.

As a result of this stand on the part of many radiation safety officers (usually health physicists), the regulatory agencies became progressively more and more proscriptive and prescriptive on how to handle radiation sources. Now the situation is that a radiation safety officer (often not a health physicist) is simply the person who reads the regulations and assures that his/her organization follows all the rules and requirements as set forth in a regulatory license. The judgment as to what is safe or not and what are safe practices has been taken out of the hands of health physicists and radiation safety officers and such decisions are now the provenance of the regulatory agencies.

No wonder health physicists are afraid to state that a low (the reader can define low), but not zero, dose of radiation is "safe."

Support for Tschaeche Petition

Michael R. Fox, PhD
Kaneohe, Hawaii

I am expressing my strongest support for the petition by Al Tschaeche to revisit the findings of the Taiwan group with regard to radiation exposures (*Health Physics News*, May 2005, p 17). The Health Physics Society (HPS), the National Council on Radiation Protection and Measurements, and the International Commission on Radiological Protection share in the responsibity for the over regulation of low-dose radiation (the LNT). This has cost the nation hundreds of billions and denied millions of safe, low-cost electricity, more effective medical therapies, and safer foods. There are no organized means for appealing these exaggerations, either. The HPS is better than this.

Biology and radiation scientists characterize the use of the LNT as "without scientific foundation," as "a deeply immoral use of our scientific heritage" (Dr. Lauriston Taylor), and as "the greatest scientific scandal of the 20th Century" (Dr. Gunnar Walinder). It's long past due when the HPS begins the process for establishing reasonable defensible regulation of low-dose radiation.

Please help establish defensible science in radiation protection and help reverse the damage done by overregulation and the LNT.

Response to Michael R. Fox

Ray Guilmette, PhD
HPS President
Los Alamos, New Mexico

The commentary by Al Tschaeche (*Health Physics News*, May 2005, p 17) and the present letter from Michael Fox supporting the need for research on low-dose radiation effects in people raise some important issues for the Society. Among them are what role the Health Physics Society should play in promoting science and research, and how does the Society respond to petitions from its members. Taking the latter point

first, the Executive Committee decided that we needed an external technical opinion to more cogently address the Tschaeche petition, and John Boice was enlisted to provide it. With John's review comments in hand, the Board discussed the issues related to the petition at the 2004 Augusta Midyear meeting, and voted to deny it. Although the review comments played a role in the decision, they were not the sole determinants. Equally important was the discussion on the role the Society should play in promoting individual scientific projects. The sense of the Board was that in general such an activity was not suitable, due to the lack of relevant scientific expertise among the leadership at any given time to be able to peer review proposals, and that the Society itself does not fund research. On the other hand, the Board recognized the need for the Society to promote radiation safety research in a proactive manner. This has been one of my goals as president.

In January 2005, I began an initiative to develop a strategy to revive radiation safety research by identifying new sources of funding for investigator-initiated research (*Health Physics News*, March 2005, cover story). As part of the initiative, the Research Needs Task Group identified two research areas that are relevant to the Tschaeche proposal, that is, radiation effects at low doses and dose rates, and epidemiological studies to support risk estimation. Presently, we have not yet been able to convince the federal agencies to create new funding opportunities for us, but that is the goal toward which we are working. But it does point out that we have recognized the importance of the type of research that Al described, and will actively encourage topical support.

Last, regarding the issue of LNT (linear no-threshold) and the regulatory framework for protecting the public, the Society has not been silent. Through its position papers, the Society has been active for some time in discussing the issues of harmonization of radiation regulations (Compatibility in Radiation-Safety Regulations, March 2001), radiation risk in perspective (August 2004), and ionizing radiation-safety standards for the general public (June 2003) with federal agencies and members of Congress. However, the Society's focus has not been to try to shift the LNT paradigm to another model, but rather to prevent misuse and misapplication of the LNT in regulations, such that resources are wasted, and public perceptions about radiation are made worse than they already are. This is perhaps not as revolutionary as some would like, but educating the legislators and regulators to acknowledge that uncertainties exist in the dose-response relationships at low doses has proven to be a realistic goal for us. And this is consistent with Dr. Fox's plea to "establish defensible science in radiation protection."

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http://hps.org/newsandevents/meetings/meeting4.html

http://tourmap.com/spk_full.html

North Central Chapter

Daniel J. McGrane

North Central Chapter HPS-AAPM Joint Meeting, 29 April 2005

The North Central Chapter of the Health Physics Society (NCCHPS) and the North Central Chapter of the American Association of Physicists in Medicine (NCCAAPM) held a joint meeting at the Pyle Center, University of Wisconsin, in Madison, Wisconsin, on 29 April 2005. The morning session was a joint meeting of the two chapters, with afternoon breakout sessions.

The meeting was supported in part by Health Physics Society and AAPM affiliate members, including Fluke Biomedical, Global Dosimetry Solutions, Image Technology, Scientific Instrument Sales, International Specialty Products, MEDTEC, 3D Line USA Inc., Siemens Medical Solutions USA, Inc., Proxima Therapeutics, Inc., Bard, IMPAC Medical Systems, Inc., Sun Nuclear Corporation, Unfors Instruments, Inc., TomoTherapy Incorporated, North American Scientific, Nucletron, Standard Imaging, GAMMEX rmi, Scanditronix/Wellhofer, and CMS Inc.

Richard Love of Scientific Instrument Sales (left) and Marcum Martz

Brian Vetter (left) and Jeff Brunette

Eric Hendee (NCCAAPM) and Jeff Brunette (NCCHPS president-elect) started the meeting with some opening remarks. Bruce Thomadsen provided a few memories of John Cameron, a leading figure in medical physics and health physics at the University of Wisconsin.

Leola DeKock of the Wisconsin Department of Health and Family Services (DHFS), Radiation Protection Section, provided details of proposed radiological decontamination training programs for emergency personnel to be conducted by DHFS and staff from the Radiological Emergency Assistance Center/Training Site. DHFS is hoping to schedule two such training sessions in Wisconsin in 2005.

Leola DeKock

Douglas Simpkin

Douglas Simpkin of St. Luke's Medical Center, Milwaukee, Wisconsin, gave a presentation on the recently published National Council on Radiation Protection and Measurements (NCRP) Report No. 147, "Structural Shielding Design for Medical X-Ray Imaging Facilities." Doug's presentation included some historical aspects of the revision of NCRP Report No. 49, some theoretical concepts used in the development of Report No. 147, and some sample calculations made using the new methodologies.

Bruce Thomadsen of the University of Wisconsin provided an overview of the use of ^{90}Y microspheres and safety considerations for their use in therapeutic procedures conducted in interventional radiology.

Bruce Thomadsen

Four University of Wisconsin physics students made presentations on their work:

• **Michael Meltsner**—*Automatic Brachytherapy Delivery System*: a report on the development of a robotic arm for the implanting of brachytherapy seeds used in the treatment of prostate cancer.

Michael Meltsner

Wes Culberson

• **Wes Culberson**—*A New Ionization Chamber for Measuring the Effects of Aperture Size on Low-Energy Brachytherapy Sk Measurements*: a new chamber design that accounts for anisotropy in the measurement of ^{125}I and ^{103}Pd seeds.

• **Reed Selwyn**—*Gel Dosimetry:* the development of gels for use in three-dimensional dosimetry using radiation-induced density changes.


Reed Selwyn


Jonathan Nye

• **Jonathan Nye**—*Cyclotron Production of ^{124}I for Diagnostic and Therapeutic Purposes:* ^{124}I is produced from solid TeO targets for use as a PET or therapy radionuclide.

After the lunch break, the chapters held separate breakout sessions which, for HPS, included the chapter business meeting. Mike Lewandowski from 3M made a presentation on the HPS science teacher workshop (STW) conducted at the Wisconsin Association of Physics Teachers convention at the UW-Oshkosh campus on 30 October 2004. Mike provided feedback from attendees and then led a discussion by the STW Committee on improvement and goal-setting for future workshops. It is the consensus of the committee that the chapter should try to host one or two regional workshops of this type per year in the future.

Jeff Brunette from the Mayo Clinic (and also a member of the Minnesota Advisory Committee) provided an update on the Minnesota Agreement State effort. While regulations have not yet been issued, Minnesota plans to become an Agreement State in the fall of 2005. Jeff followed this with a presentation on dose reduction efforts at the Mayo Clinic PET Cyclotron for PET pharmacists and cyclotron engineers.

The meeting was wrapped up with a tour of the University of Wisconsin's PET Cyclotron, used for producing research isotopes.

Thirteenth Annual J. Newell Stannard Lecture Series "Excellence in Radiation Protection"

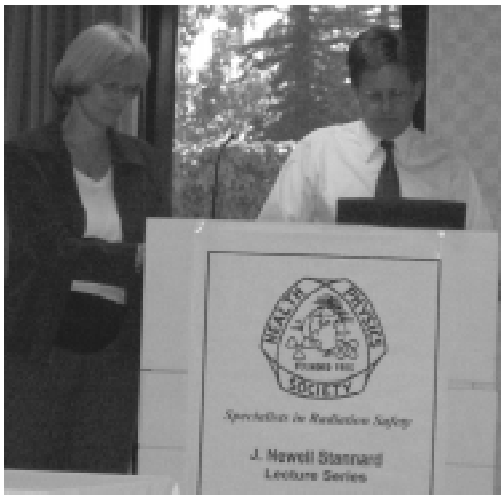
John Taschner, CHP
Marcia Hartman

The Sierra Nevada and Northern California chapters of the Health Physics Society (HPS) hosted the Thirteenth Annual J. Newell Stannard Lecture Series "Excellence in Radiation Protection" on Thursday and Friday, 14-15 April 2005, at the Courtyard by Marriott in Sacramento, California.

The Program Committee was chaired by Marcia Hartman and included Steve Frey, Linda Kroger, and John Taschner. Marcia did an outstanding job chairing the committee and arranging the program for this two-day professional meeting.

The chapters have been meeting jointly since 1992 to honor Dr. J. Newell Stannard for his contributions to research on the health effects of ionizing radiation and to the education of students in both basic and applied radiation protection since the 1940s at the University of Rochester.

The meeting began with a full day of Professional Enrichment Program (PEP) classes. The first PEP class was "Radiological Sources and Containers in the Former Soviet Union," presented by John Haynie (Los Alamos National Laboratory). Haynie related his experiences in traveling to the former Soviet Union countries to assist host countries in the control of radioactive sources to reduce the threat that they could be used in radiological dispersal devices (RDDs) or "dirty bombs" to prevent their theft and malicious use. The second PEP class was presented by Ramsey Badawi (University of California Davis Medical Center). Badawi reviewed the advances that are currently taking place in the design and capabilities of positron emission tomography as well as the diversity of radiopharmaceuticals used. The third PEP class was presented by Joel Swanson (Lawrence Livermore National Laboratory [LLNL]). His topic was "The Department of Energy's Radiological Response Groups." Joel described the various Department of Energy assets available to respond to a variety of radiological emergencies and provided a brief discussion of a few of the more significant nuclear weapon accidents.



Program Chair Marcia Hartman and Board Member Jim Case prepare for the next speaker.

Following the PEPs, the attendees enjoyed the Sponsor Reception. This year's sponsors were Canberra Industries, Global Dosimetry Solutions, Laundauer, Inc., ORTEC, Radiation Detection Co., RSO, Inc,

Seltech Inc., and Thermo Electron. The chapters are very grateful for their support of this conference.

The technical meeting on Friday began with a welcome by Sierra Nevada Chapter President Victor Anderson.

The Keynote Speaker was Bruce Boecker, whose talk was "Broad-Based Internal Emitter Research Built on Firm Stannard Foundations." Bruce began his presentation with a few comments about his recent visit with Dr. Stannard at his home in San Diego. He then spoke about how Stannard and the early University of Rochester research program provided a firm foundation for understanding the dosimetry of internally deposited radionuclides.

We are grateful that HPS President-elect Ruth McBurney was able to attend the meeting. Her talk "Health Physics and the Health Physics Society in a Changing Environment" was well received and brought about several questions and comments from the attendees. Other speakers at the Friday meeting were Dr. Ralph Thomas (LLNL), Dr. Jerrold T. Bushberg (University of California Davis Medical Center), Dr. Edwin M. Leidholdt, Jr. (Western Region Veterans Administration Regional Office and University of California Davis), John Taschner (LANL, retired), and David L. Kukis (University of California Davis).

Some of the talks and papers from the meeting will be posted on the Sierra Nevada Chapter Web site (http://hps1.org/chapters/snv/meetings.htm), including the talks by Bruce Boecker, Ralph Thomas, and John Taschner. So check it out for some very interesting information.

Twenty-Five Year Members of the HPS

The Health Physics Society is proud to honor the following members who have, as of 2005, belonged to the Society for 25 years.

Joe M. Aldrich
Peter G. Bailey
Neil M. Barss
Eugene P. Beaupre
Mark Berner
Joseph S. Blinick
Richard D. Boyer
Melvin K. Branter
Linda G. Bray
Dennis F. Brendel
Thomas E. Buhl
Jerrold T. Bushberg
Naresh K. Chawla
Robert N. Cherry, Jr.
Brian P. Colby
David J. Collins
Richard H. Cooke
Cheryl M. Culver-Schultz
Morley W. Davis
Eric G. Daxon
Martha G. Dibblee
Douglas G. Draper
William P. Dundulis, Jr.
Steven R. Eckberg
Arthur F. Eidson
William G. Fisher
James W. Fitzgerald
Henry W-C. Fong
Elizabeth H. Forbes
John R. Frazier
Shirley A. Fry
Michael D. Funkhouser
Melody Geer
Stame George
Sharon A. Glaze
Harvey J. Goldberg
Thomas S. Gray
Gregory G. Hall
Kathleen M. Hall
Byron L. Hardy
Joseph P. Hellman
David K. Helton
Charles T. Hess
Mark E. Hevland
Larry G. Hoffman
Keith P. Irving
Ninni Jacob
Larainne G. Koehler
Gary H. Kramer
Susan M. Langhorst
Karen S. Langley
G. Harold Langner, Jr.
Thomas R. Lavoy
David R. Lee
Walter S. Loring
Timothy P. Lynch
Carolyn J. Mac Kenzie
William J. Maguire
Donald G. Marksberry
John R. Martin
Pedro J. Mas
Susan T. Masih
James L. McAtee
Kimberly L. McMahan
Tariq Mian
Marie T. Miller
Michael D. Mills
Lutz E. Moritz
Kenneth L. Mossman
Scott C. Munson
Michael M. Nawoj
Philip C. Nyberg
John H. O'Brien
Patricia A. Padezanin
Theodore Padezanin, III
Richard C. Palmer
Frank L. Parker
William S. Pennington
Thomas J. Petrone
Richard G. Piccolo
Mark A. Pierro
Kathryn H. Pryor
Govind R. Rao
Douglas H. Rockwell
Elizabeth G. Rodenbeck
James E. Rodgers
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Adelia Sahyun
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Michael G. Stabin
Thomas D. Strickler
Lin-Shen C. Sun
Verne Y. Tabacon
David M. Taylor
Cathryn L. Teasdale
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Progress in Professional Recognition and Title Protection

Background

The Ad Hoc Committee on Professional Recognition and Title Protection was formed by the Academy in 2003. The original committee included Ed Maher, Regis Greenwood, Kyle Kleinhans, and Kenny Fleming as the acting chair. The purpose of this ad hoc committee was to determine the feasibility and methods that may be used to protect the certified health physicist (CHP) designation and how legislation may be utilized within future regulatory efforts as a means of considering CHPs to be competent persons to conduct specified work in a jurisdiction.

The scope of the professional recognition and title protection program was later expanded into a joint effort with the Health Physics Society (HPS), as described below, into a wider initiative to include health physicists and registered radiation protection technicians.

The ad hoc committee transitioned at the Augusta 2004 Midyear Meeting of the American Academy of Health Physics (AAHP). During the Augusta Executive Committee meeting it was decided to modify the objective of the ad hoc committee to one of implementing some specific actions aimed at improving the Academy's posture relative to protecting the CHP title through legislative action at the state level. Howard Dickson was selected to chair the modified ad hoc committee and the following members were appointed: Regis Greenwood, Ed Maher, Frazier Bronson, Tom Essig, and Judson Kenoyer. It was decided to pursue professional title protection via legislative means, that is, a Profession Title Protection Act.

The purpose of a Profession Title Protection Act is to provide legal recognition to the profession of health physics, as well as provide assurance to the public that individuals representing themselves as being involved in the profession of health physics have met minimum qualifications, thereby protecting the public health and safety.

The Academy has been successful in negotiating a tripartite agreement with the HPS and the American Industrial Hygiene Association (AIHA) to mutually pursue professional recognition and title protection. The tripartite agreement outlines the duties and responsibilities of all parties and discusses financial arrangements. In essence the HPS and AAHP are buying services from AIHA and sharing that cost between us.

The next major hurdle was to prepare the language that would go into model legislation. Rather late in December 2004, the HPS and AAHP agreed on the "health physics" language for the model legislation. In addition the National Registry of Radiation Protection Technologists (NRRPT) concurred with the model legislation language and their RRPT title was included. The AIHA accepted our recommended language with very slight modification.

Now we are engaged in the legislative process. Based on recommendation from Aaron Trippler, Director of Government Affairs for AIHA, we targeted Ohio and Georgia this year. AAHP President Tom Buhl and HPS President Ray Guilmette sent a joint letter to the HPS chapters in Ohio (3) and Georgia (2) informing them of the professional recognition/title protection initiative and requesting their support. We encountered nothing but enthusiasm and supportive folks in the chapters.

Success in Georgia

Georgia House Bill 353, cited as the "Industrial Hygiene, Health Physics, and Safety Profession Recognition and Title Protection Act," was signed into law 9 May 2005 and becomes effective 1 July 2005. This Act amends Title 43 of the Official Code of Georgia relating to professions and businesses, so as to provide legal recognition to the professions of industrial hygiene, health physics, and safety.

The AAHP and HPS are particularly appreciative of the work of AIHA Executive Director Steven Davis in

crafting the agreement and of Aaron Trippler, the individual primarily responsible for the success of this bill. AAHP's Howard Dickson and HPS's Ken Kase coordinated the health physics aspects of the bill. Once the bill was drafted, HPS Director and Atlanta Chapter President Robert (Bob) Whitcomb worked to notify and encourage the Atlanta Chapter to support this legislation.

An excerpt of the act is provided below:

Purpose

The purpose of this Act is to provide legal recognition to the professions of industrial hygiene, health physics, and safety, as well as provide assurance to the public that individuals representing themselves as being involved in the professions of industrial hygiene, health physics, and safety have met minimum qualifications, thereby protecting the public health and safety.

More specifically this law was enacted for the purposes of:

1) Prohibiting an individual from representing that the individual is a certified associate industrial hygienist, certified health physicist, certified industrial hygienist, certified safety professional, construction health and safety technician, occupational health and safety technologist, or registered radiation protection technologist unless the individual meets certain qualifications;

2) Prohibiting a business entity from identifying, representing, or advertising itself as a provider of industrial hygiene, health physics, or safety services furnished by a certified associate industrial hygienist, certified health physicist, certified industrial hygienist, certified safety professional, construction health and safety technician, occupational health and safety technologist, or registered radiation protection technician unless the business entity meets certain qualifications; and

3) Providing or recognizing certain qualifications for individuals and business entities using certain titles or making certain representations relating to the provision of industrial hygiene, health physics, or safety services.

Penalties

Any person who violates this chapter shall be guilty of a misdemeanor and, upon conviction, shall be punished by a fine not exceeding $1,000.00.

Future Activities

Legislation similar to that passed in Georgia is currently being pursued this year in the state of Ohio under the tripartite agreement. AAHP and HPS plans call for the introduction of similar legislation in approximately two new states each year in collaboration with AIHA.

The ad hoc committee is expected to become a standing committee of the Academy with a dedicated mission to promote professional recognition and support title protection legislation.

References

The official Web site of the Georgia General Assembly is available at: http://www.legis.state.ga.us/legis/2005_06/sum/hb353.htm.

An article in the "What's New in the Member's Only Section" on the HPS Web site is available at: http://hps.org/membersonly/newsandactivities/whatsnew.html#484.

AAHP Election Results

The American Academy of Health Physics is pleased to announce the results of the Academy election which closed on 20 May 2005—494 ballots were cast. Edward F. Maher is our new president-elect designate, Robert P. Miltenberger will be the next Academy secretary, and David S. Myers has been elected as an Academy director.

The terms of office will begin at the Academy's Executive Committee meeting held in conjunction with the January 2006 Health Physics Society Midyear Meeting in Scottsdale, Arizona, and will run for (approximately) three years until the AAHP Executive Committee meeting held in conjunction with the 2009 HPS Midyear Meeting.

Congratulations to these incoming additions to the Academy leadership; thanks to the Nominating Committee, to all the candidates, and to those CHPs who participated in the balloting process.

Email Address Correction

There was a typo in the CHP Professional Liability Insurance article in the June *CHP News*. The correct email address for Brian M. Methé is bmethe@stpetershealthcare.org. The editor apologizes for this typo.

The Display Ads, Short Course listings, and Placement Center are available in the hard-copy version of *Health Physics News*.

***Health Physics News* Contributions and Deadline**
Almost everything the Managing Editor receives by 20 July will be printed in the September issue.

HPS Reference Library: http://www.min.uc.edu/nuclear/hpspep/peplib.html

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HPS Home Page URL: http://www.hps.org

Article II, Section 1, of the Bylaws of the Health Physics Society declares: "The Society is a professional organization dedicated to the development, dissemination, and application of both the scientific knowledge of, and the practical means for, radiation safety. The objective of the Society is the protection of people and the environment from unnecessary exposure to radiation. The Society is thus concerned with understanding, evaluating, and controlling the risks from radiation exposure relative to the benefits derived." *Health Physics News* is intended as a medium for the exchange of information between members. *Health Physics News* is published monthly and is distributed to the members of the Society as a benefit of membership. Subscriptions for nonmembers are available. Libraries, institutions, commercial firms, government agencies, and any person not eligible for membership may obtain a subscription. A small inventory of recent back issues is maintained by the Society at the Office of the Executive Secretary to supply copies to new members not yet on the mailing list. Inquiries about back copies and about subscriptions should be directed to the HPS Secretariat.

***** CHANGE OF ADDRESS, PHONE, FAX, OR EMAIL INFORMATION *****

If you have a change of address, phone or fax number, or email address you may now make those changes via the Health Physics Society (HPS) Web site (www.hps.org) in the Members Only section. The changes will be made to the Web site database and will also automatically be sent to the HPS Secretariat so that changes will be made on the Society database.

If you do not use the Internet make your changes through the HPS Secretariat.
Please make any changes or corrections BESIDE YOUR MAILING LABEL (on the reverse side of this notice).
If you have any change in your phone number, fax number, or email address, please note it near the label.

Odds and Ends from the Historical Archives

Paul Frame

Alpha Poppy (early 1950s)

The Model 2801, manufactured by Radiation Counter Laboratories, Inc., of Skokie, Illinois, was a semi-portable alpha monitor. Its common name, the "Poppy," was derived from the distinctive popping sound of its audio output. Since the RCL unit operated from a 120 volt AC current, it was referred to as an "AC Poppy" to distinguish it from the battery-powered survey meter also known as the "Poppy." Although the Poppy typically employed an air proportional counter, this example is shown with an alpha scintillator. The latter was often preferred because it was less susceptible to microphonics than a proportional counter and it was not as affected by humidity.

The monitor shown here was used at Oak Ridge National Laboratory and is of early manufacture (Serial Number 7). It was found in what can charitably be described as a dilapidated shed, covered in dirt, on a shelf with vines growing over it, in East Tennessee. The animals I heard scurrying about apparently shared my excitement at the discovery of this little Health Physics treasure. If there are any more of these to be found around here, a good place to look would be the front porch of a retired HP. Possibly behind the old broken refrigerator and the car seat. The alpha probe on top of the monitor came from Ron Kathren's porch.

Upcoming Events

2005 HPS Summer School
"Operational Health Physics: Planning and Implementation"
5-8 July 2005
Gonzaga University
Spokane, Washington

50th Annual Meeting
of the Health Physics Society
http://hps.org/newsandevents/meetings/meeting4.html
10-14 July 2005
Doubletree Convention Center
Spokane, Washington

39th Health Physics Society
Midyear Topical Meeting
22-25 January 2006
Scottsdale, Arizona

51st Annual Meeting
of the Health Physics Society
http://hps.org/newsandevents/meetings/meeting5.html
25-29 June 2006
Westin Convention Center
Providence, Rhode Island

HPS Web Site: http://www.hps.org

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