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#### American Academy of Health Physics American Board of Health Physics

## N-E-W-S

PRESIDENT'S REPORT DECEMBER 1996

Kenneth R. Kase, CHP President, AAHP, 1996

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The Midyear Symposium of the Health Physics Society will be next month in San Jose, California, and the AAHP is planning a reception for all CHPs in attendance. The purpose of this reception is to welcome any of the recently certified HPs who are at the meeting into the Academy and to give us all a chance to become better acquainted. The details were not complete when I wrote this column, so look for the announcement at the meeting and please come.

In the October "CHP Corner," I reported that I had sent letters concerning two individuals who were using the designation CHP and apparently misrepresenting themselves as Certified Health Physicists. I received very prompt written assurances that neither of the two individuals had intended such misrepresentation. One instance was apparently a mistake on the printed announcement of a program, and the other individual asserted that his use of CHP was intended to denote his status as a Certified Health Professional. He stated that he will discontinue the use of CHP.

To repeat my statement from October: The AAHP needs your help to monitor misuse of our marks. If you are aware of any individuals who misrepresent themselves by improperly using CHP or Certified Health Physicist, please inform Nancy Johnson at the Secretariat's office. Send her all the information that you can obtain. This should include a copy of the material in which the misuse occurs and the address of the individual who is misusing the marks.

A final version of the Strategic Plan should be available for the January meeting of the Executive Committee in San Jose. It will contain six Goals that match the mission of the AAHP:

- 1. High standards for certification,
- 2. High standards for professional responsibility and practice,
- 3. High continuing education standards.
- 4. Recognition,
- 5. Increased communication, and
- Increased value of membership.

Implementation strategies for each of these Goals were developed at our meeting in Seattle. These are currently being reviewed to produce a final plan.

At the HPS Annual Meeting in Seattle, President-elect Jerry Martin and I met with Health Physics Society President Rich Vetter and President-elect Otto Raabe to exchange information on current activities and some future plans. We all agreed that the meeting was valuable and that these meetings should be continued at future Midyear and Annual meetings. We also agreed that the Presidents and Presidents-elect should exchange visits to the other's Executive Committee and Board meetings.

The Executive Committee met on Tuesday, July 23, in Seattle. The Academy Special Session on Wednesday, organized by Carol Berger, was outstanding. It was clear that the discussion could have gone on for a much longer time than was available. The Annual Open Business Meeting provided time for AAHP members to discuss Academy and ABHP operational issues, but again the time was too short.

#### **Executive Committee**

Two of the actions that were taken at the Executive Committee meeting were guided by the strategies that were drafted for the Strategic Plan. One of these is to develop closer cooperation with the Health Physics Society on issues of common interest. This was explored further in our meeting with Rich Vetter and Otto Raabe. As a result I have written a letter to the HPS President and the chairman of the HPS Scientific and Public Issues Committee offering the services of the AAHP Executive Committee to review and comment on S & PI statements as they are being developed. Such comments would be a consolidation of Executive

Committee opinions and would not constitute an AAHP endorsement of any position. I have also written to the Conference of Radiation Control Program Directors suggesting that we open a dialogue to explore ways that the AAHP could participate in the Conference's activities.

The AAHP is a collaborating organization with the National Council on Radiation Protection and Measurements. As such, the NCRP sends us draft reports for comment. In the future these reports will be sent to the Past-President who will choose an appropriate member of the Academy to provide the review. In addition, the AAHP included \$3,000 in the current year's budget as a contribution to the NCRP.

#### **Annual Meeting**

Next year's program at the Annual meeting in San Antonio will be a full day. I have appointed Carol Berger and Charlie Meinhold to help me choose a topic and develop the program. I would appreciate suggestions from you for a topic that would be timely and of interest to discuss at our meeting. Send your ideas to me at krk@slac.stanford.edu by January 3rd.

We also are planning to hold an Academy reception at the San Antonio meeting next summer to welcome new members of the Academy and to provide some time for CHPs to socialize.

#### Professional Development

Upon recommendation of the Professional Development Committee, the Executive Committee decided that the AAHP should not become affiliated with the National Organization for Competency Assurance, but instead would assess the value to the ABHP of membership in the Council of Engineering and Scientific Specialty Boards.

Chairman Joe Ring reported that the Committee is working on developing two documents that will specify the qualifications and general duties of a campus RSO and a hospital RSO. Drafts of these documents should be available for review by the Executive Committee in January.

#### Continuing Education

There will be two AAHP courses offered at the meeting in San Jose on Saturday, January 4th. Medical Health Physics will be presented by Ralph Lieto and Non-Medical Electronic Product Radiation will be given by I. Paul Leggett, Jr. These promise to be excellent continuing education opportunities, and each is worth 16 CEC units.

A proposal to the Executive Committee to award CEC units for "the active professional practice of health physics" was unanimously defeated. The active practice of health physics is one of the requirements for maintaining certification and it does not qualify as continuing education. Upon the recommendation of Continuing Education Committee Chair, Dave Snellings, two policy revisions were approved. One is to extend to 4 years the approval for courses that are repeated, provided there are no significant changes in content or length. The other is an adoption of a formal procedure to assist with obtaining CECs for self study. (See "AAHP Continuing Education Committee," page 5, for more information.)

#### **General Items**

As most of you probably know by now, the AAHP has a WWW
Home Page, thanks to the efforts of Scott Medling. I hope that you have had a chance to visit it and are finding it useful. I am sure that Scott would appreciate any suggestions for improving it.

The continuity of operations for the AAHP depends on the work of the Program Director, Nancy Johnson, and the Executive Secretary, Dick Burk. They are tremendous resources for the Academy. Nancy, in particular, is the center of operations and can be relied on to provide you any information you might need about the AAHP, or help you find it. We are especially indebted to Nancy Daugherty for continuing to produce the "CHP Corner" and the CHP News, so that we can keep each other informed about the activities of the Academy.

The Executive Committee makes the policy decisions that affect the functioning of the Academy. To make it the organization that you as a Certified Health Physicist want, we need your ideas. Please let us know about activities that you think would be appropriate for the Academy.

I want to hear from you about your ideas and concerns, and especially about what you think the purposes and activities of the Academy should be. I must say that at this point, three quarters of the way through my year as President, I have heard from practically no one. You can contact me easily by email at: krk@slac.stanford.edu.

I am coming to the end of my year as President. Together with the Executive Committee and the active committees of the Academy we have built on the structure that was started by our predecessors and have completed a Strategic Plan that will guide the Academy into the future. We have begun some new initiatives that are consistent with the goals stated in the Strategic Plan. I thank all of you who have been active in the business of the AAHP and the ABHP. The Academy, with your support, has a bright future as an organization that represents you as a Certified Health Physicist and that complements the Health Physics Society. In January, Jerry Martin will assume the office of President, and I suggest that we all give him our full support.

Applications for the 1997 ABHP Certification Exam must be <u>postmarked</u> no later than January 15, 1997

#### FROM THE CHAIR DECEMBER 1996

Thomas E. Buhl, CHP Chair, ABHP, 1996

Please Visit the ABHP Home Page. The Board would like to thank Scott Medling, the 1995 Board Chair and current AAHP Webmaster, for his efforts in establishing an ABHP Home Page on the World Wide Web, in conjunction with the AAHP Home Page. The ABHP Web Site (http://phantom.ehs.uiuc.edu/ ~aahp/abhp/abhp.htm) has a wealth of useful information for individuals interested in the certification process and especially for candidates that will be taking the certification examination. This information includes the text of the ABHP Prospectus, which gives the history of the ABHP certification process, the general requirements for certification and for taking the examinations, and the costs of applying for and taking the examination.

The Web Site gives the Board's policy on calculators and the list of the calculators approved to date. We have also posted Part II of the 1995 and 1996 ABHP certification examinations as an aid to candidates preparing for the exam. The Board is considering posting copies of Part II exams from previous years to make these more readily available.

#### Candidate Questionnaire.

Several times in the past surveys have been conducted of candidates as an aid in preparing future examinations. A recent survey,

#### **CHP NEWS**

which was prepared by Kathy Pryor, Frank Masse, and myself, was conducted last February of the candidates taking the 1995 Part II examination. This survey took place after the candidates had learned their exam results. Responses were received from 93 of the 194 candidates taking the exam, for a 48% response rate. Responses were received from 21 of the 37 candidates (57%) who passed the examination, and from 70 of the 157 candidates (45%) who were unsuccessful. Two responses had no indication if the candidate passed.

The candidates were asked whether they agreed or disagreed with nine statements related to the examination. These statements included the following:

- The examination was an adequate test of health physics,
- Sufficient time was provided to complete the exam,
- Enough supporting information was provided with each question,
- The facilities in which the exam was given were satisfactory,
- 5. The questions were clearly stated.
- My health physics specialty was represented,
- 7. The exam was sufficiently comprehensive,
- There was an appropriate balance of essay and calculational questions, and
- I was well prepared to take the exam.

Scores ranged from "fully agree" (score = 1) to "neutral" (score = 3) to "strongly disagree" (score = 5).

In general, the average scores of the candidates agreed with all the statements (although individual responses ranged from 1 to 5), except for the second statement. The average response for this statement was 3.2. The average scores for the other statements were all less than 3, and ranged from 1.4 to 2.8. Standard deviations were typically a little greater than 1. This is based on the 48% of the candidates responding to the questionnaire.

The scores were also grouped by whether the candidate was successful or unsuccessful in the exam. Successful candidates agreed with all the survey statements more than the unsuccessful candidates. Again, the second statement (sufficient time) was the statement that the candidates agreed with the least, having an average score of 3.6 from the unsuccessful candidates and 1.8 from the successful candidates

A second section of the survey asked for information about the candidate's background and how the candidate prepared for the exam. Some of the results from this section of the survey were that successful candidates reported an average of 40% more hours in exam preparation than unsuccessful candidates, and that taking a certification preparation course, educational degree, and years of experience in doing professional health physics work were not

significant factors in passing the exam. Health physicists working for consulting firms had the highest passing rate of any employer category (56%).

The Board felt that conducting the survey provided valuable information about the examination, and appreciated the efforts of the candidates that completed and submitted their survey response.

Board Officers and Panel
Members for 1997. During its
meeting in Seattle, the Board
elected Roger Brown as the ABHP
Chair for 1997, George Vargo as
Vice Chair, Nancy Kirner as
Secretary, and Ed Maher as
Parliamentarian. Congratulations
and best wishes to these individuals
in their upcoming work.

We would also like to congratulate Bob Miltenberger for being appointed by the AAHP as the new Board member in 1997; Richard Toohey, Daryl Greene, and Edward Branagan on their appointment by the ABHP to the Part I Panel; and Ron Mlekodaj, Doug Draper, James Griffin, Paul Jones, Kathy Shingleton, Brian Methe, Xiaotian Mao, and Jonathan Wallace on their appointment to the Part II Panel.

Question Banks. The Board took action to establish a bank of questions for the Part II exam. This bank would parallel the question bank established for the Part I exam, and is intended to make the monumental task of creating the Part II exam somewhat easier.

## AAHP CONTINUING EDUCATION COMMITTEE

## David D. Snellings, CHP Chair

The Continuing Education Committee sponsored five eighthour training courses during 1996 at the HPS Midyear meeting in Scottsdale, Arizona, and the HPS Annual Meeting in Seattle, Washington. Beginning in 1992 and through 1996, the Committee has sponsored twenty-five training sessions in conjunction with the HPS meetings. The overall participation in these courses by health physicists has been excellent, and the willingness of the instructors to teach the courses and share their knowledge has been gratifying. The Committee plans to continue to offer this type of

training at the HPS meetings for the foreseeable future.

The Committee will implement several revisions to the AAHP "Continuing Education Policy", effective January 1997. These revisions are designed to assist the CHPs in the recertification process and reduce unnecessary administrative work for the CHPs and the AAHP Secretariat. The revisions to the policy include the following:

• Approval/awarding credits for training courses will be granted for a four-year cycle, rather than the current practice of a one-year period. This revision will reduce the administrative burden on the CHP, the AAHP Secretariat, and the training course provider, but will not degrade the effectiveness of the review and approval process. The application for Continuing Education Credit is available from the AAHP Program Director.

 A formal process, including definitive guidance, has been established to assist CHPs in obtaining continuing education credits for self study programs.

The process requires the CHP to submit a study plan to the Committee for approval and the pre-awarding of credits prior to beginning the self study, followed by documentation by the CHP that the study has been completed. The continuing education credits will be awarded upon completion of the study. An application form for the self study program is available from the AAHP Program Director.

The Committee has also developed formal guidelines for instructors who present the AAHP training courses, and we will initially use the guidance for the Midyear Meeting training courses.

#### WILLIAM A. McADAMS AWARD

The William A. McAdams Outstanding Service Award is made annually by the ABHP and the AAHP to honor a Certified Health Physicist who has made a significant contribution toward the advancement of professionalism in health physics and to the certification process. Nominees shall be CHPs who have served the health physics community through outstanding and extended work on the AAHP or ABHP, through teaching, or in other areas that enhance the professionalism of health physics. All CHPs, whether currently active or not, are eligible, and posthumous awards are permitted.

All AAHP members are encouraged to submit nominations. Present your nominations in a letter to the

Awards Committee chairperson for 1997, George Vargo, ABHP Vice Chair '97, detailing the rationale for your nomination and giving background information on your nominee. Other Committee members will include Roger C. Brown (ABHP Chair, '97) and Kenneth R. Kase (AAHP Past President '97). Nominations should be sent to the McAdams Award Committee Chairperson by March 1, 1997, to be considered for the 1997 award. Address your nomination letter to:

George J. Vargo, Jr., CHP PO Box 338 Richland, WA 99352 (509)375-6836 W (509)375-2019 FAX gj vargo@pnl.gov ■

#### CHP NEWS

#### **LETTERS:**

#### 1996 ABHP EXAM

#### Eric W. Abelquist

I just took the ABHP exam (Part II) in Seattle and wanted to say that I thought that it was a fair exam and well-proctored. I also thought last year's exam was fair, maybe a little more difficult than this year's.

It seems to me the passing rate is most directly related to how well the candidates prepared. Talking to several of those who failed last year, I got the sense that they took this year's exam more seriously and prepared accordingly.

Does the ABHP keep track of the passing rates for Parts I and II? Where could I get this info?

Lastly, a few kind words for the proctor in Seattle:
Nancy Kirner effectively handled a very stressful and
distracting situation - two fire alarms 15 minutes into the
exam. She assured us that (1) the Sheraton was not
going down in flames and (2) this lost time and
concentration would be made up. Thank you.

#### RESPONSE

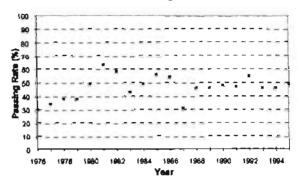
#### Tom Buhl, 1996 Chair, ABHP

I'd like to thank Eric for his letter and provide some of the information that he requested. The ABHP tracks a number of examination-related indicators, including the passing rates. The passing rates since 1976 for the Part I, Part II, and Part II (Power Reactor) examinations are shown in the figures that follow. The Power Reactor Specialty Examination was first administered in 1979 and discontinued in 1993.

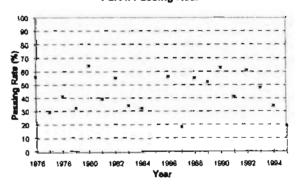
An excellent summary of information describing the Board's history, including the average scores for past examinations, is given in Frazier Bronson's 1994 overview article "American Board of Health Physics:

The First 35 Years" (Bronson 1994). Figures 2a through 2d of that paper give the available passing rates for Part I, Part II (Comprehensive), Part II (Power Reactor), and the Oral exam through 1993.

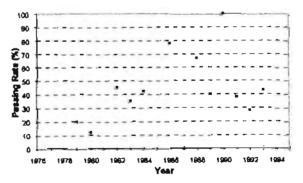
#### Part I Passing Rate



Part II Passing Rate



#### Part II (Power Reactor) Passing Rate



Adapted from Bronson, F. "American Board of Health Physics: The First 35 Years." Health Physics 67: 454-470; 1994. ■

#### FROM THE EDITOR:

Nancy M. Daugherty, CHP

#### It's Been Fun!

As this issue of the CHP News goes to press, I am expecting it to be the last one for which I will serve as Editor. For the last few months we have been advertising for applicants for the position, with the deadline for applications being December 1<sup>st</sup>. If things go according to plan, the new Editor will be selected by the AAHP Executive Committee at the Health Physics Society's Midyear Meeting in San Jose, California.

Has it been six or seven years since I took on the assignment for an "indefinite period"? Time flies when you're having fun, and I have had lots of fun with this job.

I confess that until I became News Editor, I knew very little about the AAHP and the ABHP Certification process. I was among those who voted against creation of the Academy. The ABHP seemed to be doing a great job administering the Certification program, and I saw nothing broke that needed fixing.

Fortunately, more informed votes prevailed. The ABHP is doing exemplary work in certifying and recertifying HPs, but there are other, broader issues regarding Certification and the advancement of the health physics profession that are best addressed through the Academy – if only to free the Board to concentrate on its time-and labor-intensive responsibilities.

Having seen the complexity of issues that are addressed by the AAHP Executive Committee, I am grateful that we have the Academy and its numerous committees to deal with these concerns. It is impressive to see the high-quality

work that is accomplished by Academy volunteers.

My thanks to Nancy Johnson, the Secretariat's AAHP Program Director. She has served as contributor, proofreader, and friend throughout my tenure. Genevieve Roessler, Sharon Hebl, and the rest of the HPS Newsletter folks have provided cordial, patient assistance to me and valuable visibility for the News and "Corner" by publishing or co-distributing them with the Newsletter.

To the next CHP News Editor, I wish you the best. You will be working with some great people. To the readers of the CHP News and the "CHP Corner," I encourage you to make suggestions for improvements and to submit letters and articles for publication. Thanks for the support you have given me. It's been fun!

## 1997 AAHP EXECUTIVE COMMITTEE

President:
President Elect:
Past President:
Secretary:
Treasurer:
Directors:

Jerome B. Martin Ronald L. Kathren Kenneth R. Kase John R. Frazier Jean M. Saint Germain Roger C. Brown Howard W. Dickson

Francis X. Masse Daniel J. Strom James E. Tarpinian

#### 1997 ABHP MEMBERS

Chair: Vice Chair: Secretary: Parliamentarian: Members: Roger C. Brown
George J. Vargo, Jr.
Nancy P. Kirner
Edward F. Maher
David S. Gooden
Robert P. Miltenberger
Eugene M. Rollins
Paul L. Ziemer

#### **CHP NEWS**

## AAHP CONTINUING EDUCATION COURSES Saturday, January 4, 1997 - 8 AM-5 PM Each Course is worth 16 CECs

Course 1 - MEDICAL HEALTH PHYSICS Ralph P. Lieto, Henry Ford Hospital

The intentional administration of radiation to humans presents unique radiation safety situations for the medical health physicist in a hospital/medical center environment. This course attempts to review and describe issues and problems distinct to this environment. A particular focus will be radiation machines used in medicine, but radioactive material will also be discussed. These different machines involve diagnosis — radiography and fluoroscopy; therapy — teletherapy, high dose rate remote afterloaders, and irradiators; and research. The administrative relationships that conduct the radiation safety program will be reviewed, including management, the radiation safety committee, and the radiation safety office. This course will review relevant medical regulations and recommendations, personnel monitoring, patient exposure/dose (particularly fluoroscopy), and shielding concerns.

### Course 2 - NON-MEDICAL ELECTRONIC PRODUCT RADIATION I. Paul Leggett, Jr., Center for Devices and Radiological Health, FDA

This course will cover radiation from a wide variety of sources, including industrial and analytical x-ray units, cabinet and airport baggage inspection systems, microwave ovens, industrial accelerators, TV receivers, and x-ray "people scanners." It will discuss the federal and state regulations applicable to these sources, survey instrumentation and methods, and will present data on accidental radiation occurrences. Efforts by federal agencies to regulate and control the manufacturing and quality control programs will be discussed. The course will not cover lasers or sunlamps.

## http://phantom.ehs.uiuc.edu/~aahp/

(Got the message?)

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## AAHP STRATEGIC PLAN IMPLEMENTATION

#### Jerome B. Martin, CHP 1996 AAHP President-Elect

Earlier this year when I was considering appointments for AAHP committees, I discovered there were over 200 CHPs who had expressed interest in committee participation. With only 10 committee positions to fill, very few could be accommodated. However, at the AAHP open meeting in Seattle, Ken Kase described the development of the AAHP Strategic Plan, and I indicated that many additional people would be needed to help implement that effort.

The AAHP Strategic Plan has now been drafted, and the Executive Committee will finalize it when it meets in San Jose in January 1997. Some of the tasks to implement the Plan will begin immediately thereafter. I am preparing an Implementation Plan that will be presented to the Executive Committee in December. This plan will break the Strategic Plan into "bite-sized pieces" and establish tasks for a number of ad hoc committees or teams. This will be your opportunity to participate directly in the affairs of the Academy.

An ad hoc Strategic Planning Committee will be proposed that will be charged with steering the strategic planning process. The Implementation Plan will define each task and expected products, assign task leaders, set schedules and milestones, and identify interfaces with other tasks and the AAHP/ABHP organization.

Task Definition: Individual tasks will be defined from the goals and/or objectives of the Strategic Plan. The task definition will establish what is to be accomplished, why it is needed, and suggest how the task may be organized. Expectations for any product (e.g., procedure or document) to be developed from the task will be clearly defined.

<u>Task Leaders</u>: Each task will be assigned a leader. Each member of the AAHP Executive Committee, each AAHP standing committee chair, each member of the

ABHP Board of Directors, and others will be invited to be a task leader. Task leaders will be authorized to select and assign task team members. I will provide the task leaders with the list of over 200 CHPs and others who expressed interest in AAHP committee participation to aid in their selection of task team members.

Schedule and Milestones: Each task will have an aggressive but realistic schedule for completion, with milestones established to measure progress.

Interfaces: The Implementation Plan will attempt to identify for each task the interfaces with other tasks and with other components of the AAHP and ABHP organizations. Task leaders will be expected to communicate frequently with the points-of-contact for identified interfaces to ensure that tasks are coordinated and to avoid duplication of effort. Additional interfaces will probably be identified as the Implementation Plan progresses, and task leaders will be notified accordingly.

Communications: Conference telephone calls will be recommended as an efficient method for communications among task leaders and task team members and others. A standard mechanism for conference telephone calls will be established (similar to the method used recently by the Professional Standards and Ethics Committee).

The draft Implementation Plan, when approved by the Executive Committee, will be activated immediately following the January 1997 meeting in San Jose. The first results of the implementation will be expected by the 1997 Annual Meeting in San Antonio. Additional results will follow according to the established schedule. The Implementation Plan will be revised and updated as necessary until all tasks are completed.

If you did not indicate your interest in AAHP committee participation on the recent dues envelope, and thus are not on the current list of over 200 names, it is not too late! If you would like your name added to the list or if you would like to emphasize your level of interest in implementing the AAHP Strategic Plan, please contact Jerry Martin at (806) 342-9995 or via e-mail at jb\_martin@pnl.gov. I hope to involve everyone who wants to participate in Academy activities.

#### 1996 CITATION WILLIAM A. McADAMS OUTSTANDING SERVICE AWARD

#### Presented to Frazier L. Bronson, CHP

The William A. McAdams Outstanding Service Award is presented each year by the American Board of Health Physics. Our purpose is to recognize those individuals who have made significant contributions to the advancement of professionalism and health physics certification. This award is named for the man who exercised strong and dedicated efforts to identify the need, define the concept, organize the body, obtain the charter, and implement the initial certification program.

The Award was established in 1989 in honor of one of the Board's founders, William McAdams. William McAdams provided leadership, energy, and vision to the Board during its formation. He was a member of the 1958 Certification Committee formed by the Health Physics Society to investigate the need for a Board. He then served as the Chair of the inaugural Board when it was formed in October 1959. Today's recipient, as have past recipients of the Award, has made similar noteworthy and significant contributions to the advancement of our profession and health physics certification.

The award was first presented in 1989 on the 30th anniversary of the ABHP. The seven previous recipients of the William McAdams Outstanding Service Award are

Jack Healy - 1989

H. Wade Patterson - 1990

Richard Bowers - 1991

Les Slaback - 1992

Ken Skrable - 1993

Lee Booth - 1994

Bob Casey - 1995.

Les Stabac

Today I am very pleased to announce that Frazier L. Bronson is the recipient of the eighth William A. McAdams
Outstanding Service Award. In making this award, the Board recognizes Frazier Bronson for his continuing and dedicated
efforts in advancing the profession of health physics through certification. Frazier's contributions to health physics
certification include leadership through the period when a number of refinements to the process of developing the
certification examination were proposed and implemented.

Frazier received his certification in health physics in 1973. Prior to becoming certified, he participated as an instructor in instrumentation for the Baltimore-Washington Chapter's ABHP Certification Exam Preparation Course from 1968 to 1974. He also co-developed, co-directed, and taught a portion of the Delaware Valley Chapter's 20-week ABHP Certification Exam Preparation Course in 1973 and 1974. Frazier served on the original panel of the Continuing Education Committee from 1977 to 1979; he also participated in the first ABHP Role Delineation process. From 1985 to 1989, Frazier served as a Board Member of the ABHP, including two years as Secretary-Treasurer (1986-87) and two years as Chair (1988-89).

During Frazier's tenure on the Board several important processes were developed and initiated to improve the quality and consistency of the certification exam. The following list contains many of these improvements:

- Implemented the results of the Role Delineation as a basis for the subject matter of exam questions.
- Increased the reliability of the examination process by subjecting potential questions to a formal review process and rating system.
- Provided for multiple graders (first 3, and then 5) for each question.
- Eliminated the oral examination option.
- Developed uniform scoring guidance for graders.
- Provided training session for the Comprehensive and Power Reactor Panel members for better question development.

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- Implemented the ABHP Policy and Procedures manual for Board and Panel operations.
- Introduced a formal appeals process.
- Created the Part I Panel as a separate entity.
- Created the William McAdams Outstanding Service Award.
- Introduced the first ABHP/AAHP topical session at the HPS annual meeting.
- Participated in the formative years of the AAHP, especially as it related to the ABHP.

Frazier's closing comment on his ABHP tenure is indicative of his outlook, "Had a great time and worked with some really neat people."

Frazier has also compiled an impressive collection of accomplishments in job-related activities. He is currently Vice President, Applied Systems Development, Marketing Department at Canberra Nuclear. In this capacity he is responsible for technical development and marketing of applied spectroscopy products. Included are *in-vivo* counting hardware and software, low-level waste assay systems, *in-situ* gamma spectroscopy environmental assay units, dosimetry calculation software, mobile laboratories, and a wide variety of other products for specialized customer applications.

He has served as HPS Representative to the ANSI N13 Full Committee (Radiation Protection) from 1967 to 1993. He has been a member of the ANSI N13.30 Working Group (Performance Criteria for Radiobioassay) from 1984 to the present time.

If you need to know anything about past operation of the ABHP, please consult the hallmark paper by Frazier, "The American Board of Health Physics: The First 35 Years," Health Physics 67:454-470, 1994.

Frazier exemplifies the professionalism and dedication to health physics and its practice. In appreciation and recognition of Frazier's many significant contributions to health physics certification and to the advancement of our profession, we take great pride in presenting the William McAdams Outstanding Service Award to him today.

Roger C. Brown, Chair, ABHP Awards Committee, 1996 Vice Chair, ABHP Thomas E. Buhl, 1996 Chair, ABHP Carol D. Berger, 1996 Past President, AAHP

Frazier L. Bronson 1996 Recipient of the William A. McAdams Outstanding Service Award

(Photograph courtesy of Gail A. Magenis)



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#### 1996 WILLIAM A. McADAMS OUTSTANDING SERVICE AWARD ACCEPTANCE

#### Frazier L. Bronson, CHP

Thank you very much, Roger, for the very generous words in the citation. It is a very great honor to receive this award; it means a lot to me.

I find it very interesting that of the eight awardees, three of us started our careers at the same place and time. My good friends, Les Slaback and Lee Booth, and I were all at AFRRI together. Why did all of us become so heavily involved in the Board, the Panels, the Academy, and get this award? We know that it wasn't the water, since we had a very good environmental monitoring program. I know that in my case [and I suspect for Lee and Les] much of the reason for desiring Certification, and supporting the process, came from the influence of our boss, Sydney Porter, who always stressed the importance of sound HP judgment, a strong professional attitude, the importance of Certification and the HPS, and participation in the process. Thanks, Syd.

It was Les Slaback that suggested to the Board that we create this award. I was honored to have been a part of that process, as the ABHP Chair at that time. Since this first award was to be presented at the 30th anniversary of the ABHP, we felt it appropriate to give the first award to one of the founding group. At that time, I was heavily involved in researching the ABHP archives, and I had many records from which we could get a good list of candidates. From these records we knew who proposed, who discussed, and who signed the various documents. But we did not know the real creators, workers, or implementers. So, I wrote to each of the past Board members, and asked them who the real heart and soul of the early ABHP were. Most all responded with three names: Elda Anderson, Jack Healy, and Bill McAdams. But how to choose from this outstanding list?

I believe that it was Howard Dickson who came up with the brilliant solution. Elda Anderson already had a big award named after her, so she was out. So, give the award to one [Jack Healy], and name it after the other [Wm. McAdams]. I was also quite pleased in this selection, since as co-organizer [with John Horan] of the first ABHP Special Session at the HPS Annual Meeting, the choice of Jack Healy gave us a candidate to fill in a Session time slot.

I really want to encourage all HPs to work toward becoming CHPs and want to encourage all CHPs to become active in the Board and/or Academy activities. You will be greatly rewarded. Yes, it's also challenging, but it is very intellectually and professionally stimulating. Creating good exam questions is not easy. It takes much time, group interaction, and skill to create and refine a concept into a good and fair ABHP exam question [with correct answers] and then to assemble a select group of those questions into an exam.

I don't think I have ever been surrounded by such a capable group of people as during that time on the ABHP. I am tremendously impressed with the dedication of the panel members, particularly the Chair and Vice Chair of the Part II panel [and at that time the Power Reactor Panel]. Theirs is by far the most difficult job, as Roger well knows.

The Board is also very hard working and dedicated. During my five-year stint, we met two times per year, two to three long days each time. During that entire time, I don't think that a single Board member was absent for a single day.

All of the nice things that Roger put in the citation did indeed happen when I was there. But they are the result of the combined effort of nearly 40 people on the Board and Panels. I hope that I facilitated, rather than hindered the process. But, overall, I was just lucky to be there, surrounded by many really good people, and it is in their honor that I accept this award.

Thank you very much.

http://phantom.ehs.uiuc.edu/~aahp/

(It's your Web page.)

#### THE 1996 CERTIFIED HEALTH PHYSICIST SALARY SURVEY RESULTS

#### Gary Lautenschlager, CHP

#### Background

The 1996 Certified Health Physicist (CHP) Salary Survey results are published in this report. This survey was conducted by Gary Lautenschlager, CHP, of the Midwest Chapter of the Health Physics Society in association with the American Academy of Health Physics (AAHP).

#### Data Acquisition and Analysis

Certified Health Physicists were asked to complete the 1996 CHP Salary Survey form included with the June 1996 CHP News that was co-distributed with Volume XXIV, Number 6, of the Health Physics Society's Newsletter. A total of 169 responses were received.

156 of these responses were accepted into the database, and 13 were rejected. The 13 rejections included 7 completed survey forms with "no" checked when participants were asked if they were CHPs, 5 completed forms with neither the "yes" nor "no" box checked, and 1 faxed form that was illegible.

Data for retired/part time CHPs, CHPs that did not receive benefits, and CHPs without a Bachelor's or higher degree were accepted into the database, but could not be analyzed in any meaningful way due to their limited number.

The salary ranges checked by CHPs on the completed survey forms were reduced to the midpoints of those ranges before statistical analyses were performed. For example, if CHPs checked the box for the salary range \$50,000 to \$54,999, their salary was assigned the value of \$52,500.

There were 4 Master's in Health Physics CHPs and 4 Ph.D. CHPs who indicated that they earned more than

\$130,000 per year, and 1 CHP who earned less than \$20,000 per year.

These "less than \$20,000 and greater than \$130,000" salary data could not be assigned a salary value, and were not used in the statistical analyses.



With some exceptions, only results for those categories in which there were 10 or more CHPs are given. This choice of a minimum of 10 CHPs was partly based on statistical reasons and partly to help protect the confidentiality of individual CHPs. For example, if there were fewer than 10 completed survey forms within a category, such as CHPs with a Master's in Health Physics and an American Board of Nuclear Medicine (ABNM) certification, then those data were not analyzed. The exceptions that do appear are included for general interest.

The survey results from 139 CHPs who worked full time, received benefits from their primary employer, and earned between \$20,000 and \$130,000 per year are shown in Tables 1 through 10.

Table 1 shows the results for all of the 139 CHPs grouped together. Table 2 groups these CHPs by education and field, and Tables 3 through 7 group these CHPs with different levels of education and experience together.

Tables 8, 9, and 10 show survey results for Master's in Health Physics CHPs separately, because there was a sufficient number of responses from this group.

#### **Tabulated Survey Results**

The following ten tables show survey results for full time CHPs that also received health, vacation, and/or retirement benefits:

Table 1: CHPs

CHPs	Average	Median	Standard	Maximum	Minimum	Number in
	Salary	Salary	Deviation	Salary	Salary	Category
(139 CHPs)	\$78,327	\$77,500	\$19,107	\$127,500	\$27,500	139

Table 2: CHPs by Level of Education and Field

Level of Education	Average	Median	Standard	Maximum	Minimum	Number in
and Field	Salary	Salary	Deviation	Salary	Salary	Category
Bachelor's Other Field	\$66,711	\$67,500	\$18,125	\$97,500	\$27,500	19
Bachelor's Health Physics	<b>\$7</b> 3,269	\$72,500	\$12,885	\$107,500	\$57,500	13
Master's Other Field	\$73,500	\$75,000	\$12,096	\$92,500	\$52,500	20
Master's Health Physics	\$78,465	\$77,500	\$19,627	\$127,500	\$37,500	57
Ph.D. Other Field	\$91,875	\$92,500	\$17,500	\$122,500	\$62,500	16
Ph.D. Health Physics	\$87,500	\$82,500	\$19,579	\$117,500	\$57,500	13

Note: Highest degree indicated by the CHP was used. If a CHP held a health physics degree and another degree at their highest level of education, they were counted only in the health physics degree categories.

Table 3: CHPs by Level of Education Completed (Bachelor's, Master's, or Ph.D.)

		(2220	,			
Level of Education	Average	Median	Standard	Maximum	Minimum	Number in
Completed	Salary	Salary	Deviation	Salary	Salary	Category
Bachelor's (HP, Other Field)*	\$69,375	\$70,000	\$16,301	\$107,500	\$27,500	32
Master's (HP, Other Field)	\$77,175	\$77,500	\$18,034	\$127,500	\$37,500	77
Ph.D. (HP, Other Field)	\$89,914	\$92,500	\$18,255	\$122,500	\$57,500	29

<sup>• - (</sup>HP, Other Field) = CHPs with Health Physics (HP) degree and CHPs with Other Field degree grouped together.

Table 4: CHPs by Years Experience

Years Experience	Average Salary	Median Salary	Standard Deviation	Maximum Salary	Minimum Salary	Number in Category
6 to 10 Years	\$57,955	\$62,500	\$14,740	\$72,500	\$27,500	11
10 to 15 Years*	\$67,500	\$67,500	\$13,811	\$102,500	\$42,500	28
15 to 25 Years	\$80,643	\$77,500	\$15,929	\$122,500	\$52,500	70
> 25 Years	\$90,893	\$87,500	\$18,462	\$122,500	\$62,500	28

<sup>\* -</sup> The average and the median salary are indeed \$67,500.

Table 5: CHPs by Other Certifications

Table 51 Cita 3 b) Other Cert	THEATTONS					
Other Certifications	Аустаде	Median	Standard	Maximum	Minimum	Number in
	Salary	Salary	Deviation	Salary	Salary	Category
NRRPT	\$68,929	\$67,500	\$20,702	\$117,500	\$27,500	14
PE	\$84,722	\$82,500	\$18,893	<b>\$</b> 11 <b>7</b> ,500	\$62,500	9

Table 6: CHPs by Primary Job Responsibility

Primary Job Responsibility	Average Salary	Median Salary	Standard Deviation	Maximum Salary	Minimum Salary	Number in Category
Regulations/Standards	\$84,167	\$80,000	\$24,618	\$122,500	\$42,500	12
Reactors, Other	\$85,500	\$77,500	\$25,734	\$122,500	\$37,500	10
Radiological Assessment	\$79,722	\$77,500	\$16,029	\$102,500	\$57,500	9
Radiation Safety Officer	\$67,857	\$67,500	\$19,361	\$107,500	\$27,500	14
Other*	\$88,500	\$87,500	\$17,920	\$117,500	\$67,500	10
Applied Health Physics	\$64,750	\$62,500	\$11,863	\$92,500	\$42,500	20
Administration	\$88,214	\$82,500	\$13,536	\$127,500	\$72,500	21

<sup>\* &</sup>quot;Other" as in the "Primary Job Responsibility" section of the 1996 CHP Salary Survey form. Not all of the primary job responsibilities listed on the survey form are represented in this table.

Table 7: CHPs by Primary Employer Type

Primary Employer Type	Average	Median	Standard	Maximum	Minimum	Number in
	Salary	Salary	Deviation	Salary_	Salary	Category
Government Contractors	\$77,300	\$77,500	\$16,613	\$127,500	\$57,500	25
Nuclear Power Facility	\$73,958	\$72,500	\$16,906	\$122,500	\$52,500	24
Consulting Firm	\$86,833	\$87,500	\$22,270	\$117,500	\$27,500	15
Commercial	\$88,750	\$85,000	\$17,337	\$122,500	\$62,500	12
Federal Government	\$83,333	\$75,000	\$19,346	\$122,500	\$62,500	18
Medical Facility	\$78,214	\$67,500	\$25,889	\$122,500	\$47,500	7
National Laboratory	\$73,500	\$72,500	\$12,984	\$97,500	\$52,500	15
University	\$67,833	\$67,500	\$19,316	\$97,500	\$37,500	15

Table 8: Master's in Health Physics CHPs by Years Experience

Years Experience	Average Salary	Median Salary	Standard Deviation	Maximum Salary	Minimum Salary	Number in Category
10 to 15 Years	\$69,808	\$67,500	\$11,108	\$97,500	\$52,500	13
15 to 25 Years	\$77,667	\$77,500	\$14,473	\$107,500	\$52,500	30
>25 Years	\$99,722	\$92,500	\$20,017	\$122,500	\$72,500	9

Table 9: Master's in Health Physics CHPs by Primary Job Responsibility

Primary Job	Average	Median	Standard	Maximum	Minimum	Number in
Responsibility	Salary	Salary	Deviation	Salary	Salary	Category
Administration	\$85,417	\$82,500	\$14,375	\$127,500	\$72,500	12
Applied Health Physics	\$61,667	\$62,500	\$9, <del>9</del> 62	\$77,500	\$42,500	12
Radiation Safety Officer	\$74,643	\$67,500	\$17,995	\$107,500	\$62,500	7

Table 10: Master's in Health Physics CHPs by Primary Employer Type

Primary Employer Type	Average	Median	Standard	Maximum	Minimum	Number in
	Salary	Salary	Deviation	Salary	Salary	Category
Government Contractors Nuclear Power Facility	\$81,591	\$77,500	\$18,003	\$127,500	\$57,500	11
	\$73,750	\$72,500	\$17,726	\$122,500	\$52,500	12

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#### ■ CHP NEWS

#### Top Ten Reasons to become a CHP

Many CHPs provided their reasons for seeking certification. A top ten list follows:

- 10. "Establish credibility in my profession"
- 9. "To demonstrate competence in health physics"
- 8. "Professional growth"
- 7. "Enhance professional standing"
- 6. "To meet a promotion requirement"
- 5. "Increase professional skills and value to clients"
- 4. "To get more money"

Late May/Early June

June/July

- 3. "Challenge, status, and opportunity"
- 2. "Advancement, opportunity to move from medical physics to health physics"



And the number one reason for seeking certification is...

1. "To move from management into a staff/radiological engineering position"

#### **Closing Remarks and Acknowledgments**

Questions and comments about this survey should be addressed to Gary Lautenschlager, preferably via email: GLauten@aol.com. Gary can also be reached at (630)840-8360 (W). All comments are welcome!

Many thanks to all those CHPs who submitted their responses for this survey and to the many persons who provided their comments. Special thanks to Nancy Johnson and the AAHP for their assistance.

If you are a CHP and did not contribute to this survey, please participate next time!

#### THE CERTIFICATION YEAR AT A GLANCE

#### Nancy Johnson, Program Director, AAHP Secretariat

January 15 Deadline for candidates to mail application for examination

Late January Plaques and pins mailed to new CHPs

January/February AAHP Executive Committee meets at the HPS Midyear Meeting March 1 Nominations for William McAdams Outstanding Service Award

Late March Acceptance letters mailed to examination candidates

Late March/Early April AAHP election ballots are mailed

Late April Recertification packets mailed to CHPs who are due for recertification

Entrance slips and final information mailed to exam candidates

Certification maintenance fee envelopes are mailed

Certification exam is given on the Monday of the HPS Annual Meeting

ABHP Board of Directors meets at the HPS Annual Meeting AAHP Executive Committee meets at the HPS Annual Meeting AAHP Open Meeting is held at the HPS Annual Meeting

AAHP William McAdams Outstanding Service Award is presented at the AAHP Open

Meeting

November ABHP Board of Directors and Part I Panel meet

Late November ABHP Certification Examination results are mailed

## AMERICAN ACADEMY OF HEALTH PHYSICS FINANCIAL HIGHLIGHTS

	Actual 10 mth 06/30/96	Budget Year Ended 08/31/96	Budget Year Ended 08/31/97
Total Revenue	\$145,619.	<b>\$183,650</b> .	<b>\$191,000</b> .
Total Expenses	<u>\$104,546</u> .	<u>\$166,800</u> .	<u>\$182,000</u> .
Increase in Reserve Funds	<b>\$ 41,073</b> .	<u>\$ 16,850</u> .	<b>\$ 9,000</b> .

#### Summary of Cash and Investment Balances as of August 31, 1996

Short-Term Funds	Cost	Market Value
Cash	<b>\$ 34,176</b> .	<u>\$ 34,176</u> .
Total Short-Term Fund	<b>\$</b> 34,176.	<u>\$ 34,176</u> .
Intermediate-Term Funds		
Cash	\$ 4,286.	4,286.
Certificates of Deposit	<u>97,545</u> .	<u>97,000</u> .
Total Intermediate-Term Funds	<u>\$ 101,831</u> .	<b>\$ 101,286</b> .
Long-Term Funds		
Government Obligations	\$ 90,207.	\$ 86,734.
Equity Mutual Funds	<u>119,351</u> .	<u>124,439</u> .
Total Long-Term Funds	<u>\$ 209,558</u> .	<u>\$ 211,173</u> .
TOTAL CASH & INVESTMENTS	<u>\$ 345,565</u> .	<u>\$ 346,635</u> . ■

#### LAST CALL FOR NOMINATIONS

The AAHP Nominating Committee
has initiated the process of
preparing a slate of candidates for
both 1998 AAHP Officer and
ABHP Board positions. The
AAHP Officer positions are
President Elect, Secretary, and
Director. One ABHP Board
member position will be filled in

1998. Those interested in nominating or being nominated should contact:

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Mike Sullivan (1997 Chair) 1822 Ashby Drive Miamisburg, OH 45342 (513)865-3773 W (513)865-3099 FAX ■

#### 1996 Certification Exam: Thanks for Your Help

The 1996 Certification Exam year produced the largest number of applicants and candidates to date. This year there was a total of 706 applicants, which resulted in candidates who took 270 Part I exams and 230 Part II exams.

The Exam Site Selection Committee – comprised of Bob Lorenz, Chair, Stephen Duce and William Kirk – arranged for the following exam sites and proctors. The ABHP appreciates all of the work done by the Committee and the proctors, who donated their time to assist with the exam.

#### 1996 CERTIFICATION EXAM SITES AND PROCTORS

Location	Proctors
Aiken, SC	Jim Willison, Richard Bowers
Albuquerque, NM	James Mallon, Steve Rima
Allentown, PA	Charles Kalter, William Hill, Bruce Carson
Brookhaven, NY	John Baum, Burce Dionne
Charlotte, NC	Tanjore Venkat, Gary Terrell
Chicago, IL	J. Donald Cossairt, Joseph Shuman
Columbus, OH	Craig Jensen, Stephen Layendecker, Joseph Poliziani
Denver, CO	Les Fraley, Arvin Lovaas
Gaithersburg, MD	Tom Hobbs, James Tracy
Houston, TX	Otto Zeck, William Bullard
Idaho Falls, ID	Gregory Hall, Paul Ruhter
Jackson, MS	Тетту Coggins, Gilbert Stone
Las Vegas, NV	Dan Gonzalez, Mitzi Miller
Los Alamos, NM	David Wannigman, Allen Valentine
Oak Ridge, TN	Stephen Duce, Jim Berger, Howard Pritchard
Richland, WA	Harvey Goldberg, David Hess
San Francisco, CA	Joel Cehn, Roger Sit
San Onofre, CA	Terry Cooper, Michael Russell
Seabrook, NH	Fred Straccia, Ron Thurlow
Seattle, WA	Nancy Kirner, Stan Addison, Mike Stein, Rick Poeton, Tom Meek
Troy, NY	Martin Johnson, Frank Augustine

#### PLEASE NOTE!

Applications for the 1997 ABHP Certification Exam must be postmarked no later than January 15, 1997

Volume 6, Number 2 December 1996

#### AMERICAN ACADEMY OF HEALTH PHYSICS ADMINISTRATIVE ROSTER - 1996

NOTE: Term expires at the end of the year indicated.

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