



N · E · W · S

PRESIDENT'S REPORT DECEMBER 1992

*Paul S. Rohwer, CHP
President, AAHP, 1992*

ACADEMY STRATEGIC PLANNING

Long-range strategic planning for the American Academy of Health Physics is one of the topics addressed briefly during the meeting of the Academy's Executive Committee in Columbus, Ohio, June 22-23, 1992. As background for this effort, the Executive Committee inquired about the strategic planning experience of the Health Physics Society, the American Board of Industrial Hygiene, and the Council of Radiation Control Program Directors. It was agreed that a strategic plan for the Academy is desirable and that the planning process should begin with the drafting of a vision statement. The resulting action item from the Executive Committee called for John Auxier, Past-President; Paul Rohwer, President; and Jim Turner, President-Elect to draft a vision statement for the Academy for discussion at the next Executive Committee meeting. John, Paul, and Jim met on October 12, 1992, to formulate the requested draft vision statement.

For purposes of this planning activity, the American Academy of Health Physics is defined as the body of active health physicists

certified by the American Board of Health Physics. The mission of the Academy is to carry out its purpose as defined in the by-laws:

- To provide an effective means for active Certified Health Physicists (CHPs) to participate in and contribute to the Certification Program.
- To elevate and advance the profession of health physics by encouraging its study and improving its practice.
- To encourage and insist on the highest standards of professional ethics and integrity in the practice of health physics.
- To enhance communication between CHPs in those matters of common interest.
- To support the activities of the American Board of Health Physics (ABHP) in the conduct of the certification and certification renewal process.
- To provide input of CHPs into the selection of members of the ABHP.

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In carrying out this purpose,

**IT IS THE VISION OF THE
ACADEMY THAT IT BE THE
FOCAL POINT FOR THE
PROMOTION AND
DEVELOPMENT OF
EXCELLENCE OF CERTIFIED
HEALTH PHYSICISTS.**

The above draft vision statement is published in the *CHP News* for your comment. All comments and suggestions will be given careful consideration when the Executive Committee discusses the draft vision statement during its upcoming meeting in Coeur d'Alene, Idaho, on Monday, January 25, 1993. Please send your comments to:

Paul Rohwer
Oak Ridge National Laboratory
P. O. Box 2008
Building 7509, MS-6383
Oak Ridge, Tennessee 37831 ■

**FROM THE CHAIRMAN
DECEMBER 1992**

*Carl H. Distenfeld, CHP
Chairman, ABHP, 1992*

The primary purpose of the ABHP is to provide a means to examine and certify candidates who satisfy the minimums outlined in the prospectus. This complex task costs each Board and Panel member about 100 hours every year, more for Panel Chairs and Vice Chairs. The total CHP force required to produce an exam involves more than 60

individuals, with Academy question quality assurers and graders added to the Board and three Panels.

Grading of the Comprehensive Exam is an interesting illustration of one ABHP task. Each long answer question is graded by a team of five CHPs. Even when many graders address two questions, the grading force still exceeds 30 individuals. Most of the graders are Panel members.

A fair grading policy prompted the Board to adopt a trimmed mean as the score of record for each non-multiple choice question. The trimmed mean is the average of the three central values after eliminating the high and low grader's score. The Panel Chairs review the grading of all candidates that are within 2 points of passing. For worthy exam papers, the Chairs are able to increase the score up to the highest grade of the five. The Board and Panel Chairs and Vice Chairs have consistently voted to maintain the teams of 5 graders to preserve high quality.

The Board, Panels, and *ex officio* members are rewarded by close association with their peers and by being part of the process that results in many successful candidates. This year a large number of well prepared candidates have substantially increased the total number of associate and certified health physicists. Prospective candidates are invited to take the steps to earn ABHP certification.

The continuing examination process requires workers for the

Comprehensive and Part I Panels. CHPs interested in Panel appointments are encouraged to send brief resumes to Nancy Johnson c/o the Secretariat. All specialties are needed.

The Board is working to revalidate the Part II Comprehensive examination. The previous validation was in the form of a survey of selected individuals to determine what skill areas and weighting comprise the practice of health physics. Scott Medling has written a new short form "Domains of Practice" questionnaire. Scott will select about 300 HPS members as representative of candidates for certification. Board members will contact the selected HPS members by phone and mail. The Academy and the HPS support the new survey, and I trust the selected individuals will as well. Lew Pitchford and Jean St. Germain are assisting Scott in this important effort.

Tom Buhl and Lee Booth have collaborated to recommend generic data, equations, and references the candidates should master. Starting with the 1993 exam year the Board adopted:

- In general, the Part II Comprehensive exam will not provide equations. The exceptions are a few of the more complex or specialized such as Sutton's or Loevinger's.
- Part II exam questions will provide radioisotope data. This will include half life, decay scheme, branching, and emission energies. Part I

candidates will continue to be responsible to know the constants associated with the radioisotopes listed in the 1993 and 1992 guides.

- The candidates are expected to be familiar with the ICRP and NCRP documents listed in the 1993 ABHP Examination Preparation Guide. Candidates will not be examined on the details contained within Federal regulations, except for the transportation regulations. 1993 Power Reactor candidates are expected to know the Federal regulations and guides.

Ruth McBurney and Tom Buhl are updating and providing quality assurance for the 1993 ABHP Examination Preparation Guide. The Guide will contain new references and lists of NCRP and ICRP documents that 1993 exam candidates should know. The Guide should be available by mid December.

Morgan Cox, Part I Panel Chair, has announced that a Part I Panel Passing Point Workshop will be conducted at the annual Health Physics Society meeting in Atlanta during mid July 1993. Morgan needs CHPs to volunteer 4 hours of time to take the 1993 Part I exam to aid in determining the passing score. Morgan's invitation should be especially important to CHPs interested in joining the Part I Panel. Scores will not be matched to volunteers, nor will they incur any obligation. Please contact Morgan Cox, (505)471-1370 or Nancy Johnson (703)790-1745 for a workshop appointment.

The ABHP welcomes Roger Brown to the Board. Roger was appointed by the Academy to replace Lee Booth who will complete his term in December 1992. We are fortunate that Lee and Roger were Comprehensive Panel Chairs, so the balance of detailed experience represented by former chairs remains the same.

Edward Tupin was appointed to the Comprehensive Examination Panel to complete the term of the late Norman Baily. (Please see below.) ■

The AAHP was saddened to hear of the recent death of Norman A. Baily. He had been very active on the ABHP Comprehensive Certification Panel and was recently appointed to the Continuing Education Committee of the AAHP. We will miss him. ■

**HIGHLIGHTS OF THE
AAHP EXECUTIVE
COMMITTEE
MEETING,
June 22 & 23, 1992:**

- ✓ The AAHP has grown up and is now financially independent! The Executive Committee approved a motion to advise the Health Physics Society that their annual grant of \$2,000 to the AAHP is no longer needed. Many thanks to the HPS for their support.
- ✓ CHPs may obtain additional CHP lapel pins from Nancy Johnson, Secretariat, for \$5 per pin. (The first pin is free.) Make checks payable to the AAHP.

- ✓ The Executive Committee approved formation of an *ad hoc* committee to evaluate governmental agency issues. This decision followed discussion regarding professional certification versus state licensing. A potential objective is increased communication with Federal, state, and local agencies that are new to radiation protection issues.

- ✓ The Executive Committee will develop a list of those CHPs who are interested in providing consulting services. The list will be furnished for a \$50 fee in the form of mailing labels. CHPs will have the opportunity to indicate their interest in being on this list when they receive their maintenance fee envelopes in May 1993.

- ✓ The CHP logo is so well liked that the AAHP is copyrighting it. The cost for copyright is minimal.

✓ **ATTENTION!**
Persons who submitted application fees for certification prior to the 1990 exam, but did not take the exam, must apply in writing for refunds by March 1, 1993. (Effective with applications for the 1990 exam, all fees have been nonrefundable.) Those eligible for refunds should address their written requests to Nancy Johnson, AAHP Secretariat. Requests should include all applicable identifying information, including address at the time of the application, date of the application, amount submitted, and current phone number. **Requests must be postmarked by March 1, 1993, and will be honored only when accompanied by adequate documentation.** ■

**AAHP
COMMITTEE
UPDATES:**

CONTINUING EDUCATION
COMMITTEE

*Frederick J. Borst, CHP,
Chair*

Attendance at the AAHP-sponsored Continuing Education Courses continues to be strong. There were a total of 101 registrants for the courses in Columbus, Ohio.

Please send in your suggestions for future course topics.

Don't forget:

AAHP 8-hour Continuing Education Courses will be offered at the HPS Midyear Meeting at Coeur d'Alene.

Including:

Health Physics of Diagnostic
Radiology

William R. Hendee, Ph.D.,
Instructor
Research & Technology
Medical College of Wisconsin

The application of x rays to medical diagnosis raises many radiation protection concerns that have been addressed effectively through the contributions of medical and health physicists. Recently, several new concerns have arisen related to new imaging applications such as high-resolution computed tomography, screening mammography, and fluoroscopic procedures outside

the radiology department. A review of health physics related to x-ray imaging, including newer imaging procedures such as those described above, is the purpose of this course.

and...

Radiation Risk Communication:
Perceptions and Strategies

Ray Johnson, Instructor
Radiation Service Organization and
Communication Sciences Institute

Effective risk communication involves understanding the perceptions and motivations of your audience and how to adapt your own natural communication style. This course will show you how to evaluate your audience, take people's feelings into account, and build bridges for support and credibility. We will evaluate the nature of radiation anxiety and how to deal with our own discomfort when responding to emotional people. We will learn how to simplify and present radiation concepts to non-technical people who rely mainly on their five senses for gathering information. The course will provide strategies for specific communication scenarios provided by attendees. ■

Please Note: The work phone numbers for the *CHP News* Editor have changed since the last edition. The new numbers are listed on page 19. Home address and phone remain the same.

NOMINATING
COMMITTEE

*Jerry A. Thomas, CHP,
Chair*

**NOMINATIONS FOR AAHP &
ABHP COMMITTEE MEMBERS
& OFFICERS -**

The Nominating Committee of the American Academy of Health Physics is seeking candidates for appointment to the positions of President-Elect, Secretary, and Director for the AAHP and for ABHP positions.

All active, certified health physicists are eligible. Those interested in nominating or being a candidate should contact:

Jerry A. Thomas
9117 Paddock Lane
Potomac, MD 20854
(301)295-3246 W
(301)295-3893 FAX ■

AAHP Election Results

William R. Casey - President-Elect
Jerry A. Thomas - Treasurer
Alden N. Tschaeche - Director
Bylaws Revision: **Approved**

1993 ABHP
Officers and Board Members

Carl H. Distenfeld, Chair ('93)
Ruth E. McBurney, Vice Chair ('94)
Thomas E. Buhl, Secretary ('96)
Wayne R. Hansen,
Parliamentarian ('94)
Roger C. Brown ('97)
E. Scott Medling ('95)
Thomas L. Pitchford ('93)
Jean M. St. Germain ('95)

EXAM SITE SELECTION COMMITTEE

Robert W. Van Wyck, CHP, Chair

Arrangements were completed to give the ABHP Certification Exam on June 22, 1992, at 14 locations across the country. We again attempted to limit the sites to 8, but the increase in applicants and a broader geographic distribution required the expanded number of sites to meet examinees' needs. The following tables provide information concerning the 1992 ABHP Certification Exam. We are again indebted to those CHPs who arranged for sites and provided their time for proctoring the exam. ■

1992 ABHP CERTIFICATION EXAMINATION SUMMARY

TOTAL NUMBER OF CANDIDATES TAKING EACH CATEGORY OF EXAMINATION

<u>Pt. I Exams Taken</u>	<u>Pt. IIC Exams Taken</u>	<u>Pt. IIPR Exams Taken</u>
230	110	18
Total No. of Applicants: 426	Total No. of Candidates that Took the Exam: 308	
Total No. of Exam Parts Taken: 358		

NUMBER OF PARTS TAKEN AT EACH EXAM SITE

<u>Location</u>	<u>Part I</u>	<u>Part IIC</u>	<u>Part IIPR</u>	<u>Total</u>	<u>Proctor/Assistants</u>
Albuquerque, NM	10	0	0	10	Mark Miller/Hong-Nian Jow
Brookhaven, NY	11	1	1	13	Michael J. O'Brien/Charles Flood
Charlotte, NC	22	9	10	41	Robert Sorber/Cyndi Martinec
Chicago, IL	12	5	0	17	William J. Munyon/John Peterson
Columbus, OH	81	43	0	124	Doug Draper/Steve Adams, Pat Barton, Dick Bowers, Hobert Jones, Ed Maher, Kathleen Shingleton
Denver, CO	9	2	0	11	Mike Littleton/Doug Walraven
Gaithersburg, MD	14	10	2	26	Carol Berger/Charles Galley
Houston, TX	2	8	0	10	Adrian LeBlanc/Robert Pell
Oak Ridge, TN	16	7	0	23	Alex J. Boerner/Laurie Friedman
Richland, WA	8	5	1	14	Harvey Goldberg/Paul Rittman
San Francisco, CA	8	2	1	11	Robert Lorenz/Tony Greenhouse, Ken Lamson
San Onofre, CA	10	3	1	14	Michael Russell/Terry Cooper
Seabrook, NH	14	9	1	24	Eric L. Darois/James Tarzia
Troy, NY	13	6	1	20	Martin Johnson/William Condon
Total	230	110	18	358	

TREASURER'S REPORT

Joel O. Lubenau, CHP

This report of the Academy's finances is in four parts:

- The FY 91 audited report,
- The FY 92 budget and year-end projections,
- The FY 93 budget, and
- A review of budget trends for the past 8 years.

FY 91

FY 91 saw a significant increase in applications to take the certification examinations - 99 more than budgeted. As a result, income from this source was \$23,000 greater than budgeted. Disbursements were about \$9,000 less than budgeted resulting in a net excess revenue of \$42,720 which was added to the Academy's cash reserves (Table 1).

Table 1. FY 91 Audited Report

	<u>Budgeted</u>	<u>Actual</u>
Applicants	287	386
Income	\$ 87,375	\$ 109,998
Disbursements	76,250	67,278
Excess/(deficit)	11,125	42,720
Net assets	42,011	73,606
% Disbursements	55%	109%

FY 92

The Academy's fiscal year ends August 31st. We are sufficiently well along in FY 92 to project how our income and disbursements will come out. When planning the FY 92 budget we did not know whether the increase in applications seen in FY 91 was part of a trend or a "spike." Consequently, for the purpose of budgeting for FY 92 we conservatively assumed that there was no trend and based the budget on an expectation of 287 applications. Again we had a significant increase in applications - this time to 426. This translates into additional income of about \$ 55,000. A new source of income, registration fees from AAHP CEC courses, contributed about \$20,000 of income. In FY 92, disbursements are projected to be about \$18,000 above budget. The projected excess of revenues over disbursements of about

\$35,000 will be added to the Academy's cash reserves (Table 2).

Table 2. FY 92 Budget and Projections

	<u>Budgeted</u>	<u>Projected</u>
Applicants	287	426
Income	\$ 90,025	\$144,088
Disbursements	91,550	109,203
Excess/(deficit)	(1,525)	34,834
Net assets	72,081	108,440
% Disbursements	78%	99%

FY 93

To prepare the FY 93 budget we assumed some growth in applications over the FY 92 budget will occur and therefore estimated 360 applications will be submitted. The budget also assumes income from the AAHP CEC courses equal to this FY or \$20,000. We estimate an excess of revenues over disbursements of about \$16,000 raising the Academy's cash reserves to 106% of the disbursements (Table 3).

Table 3. FY 93 Budget

	<u>Budget</u>
Applicants	360
Income	\$ 133,470
Disbursements	117,250
Excess/(deficit)	16,220
Net assets	124,660
% Disbursements	106%

There are additional comments to be made about the FY 93 budget. For several years the AAHP has held \$10,000 of its cash reserves in a separate account for refunds to persons who in earlier years submitted application fees but did not take the exam. Under present rules application fees are non-refundable. For FY 93, this full amount is included as a potential disbursement item. The AAHP Executive Committee will publish notices in the *HPS Newsletter* and *CHP News* informing persons eligible for refunds that they **must apply for the refunds by March 1, 1993**. Thereafter, the books will be closed on refunds and unused funds will be returned to the cash reserves of the Academy.

BUDGET TRENDS

Budget trends for FY 85 through FY 93 show a strong upward trend in applications and income and a smaller upward trend in expenditures (Figure 1).

The result has been a change in the Academy's year-to-year budgets, i.e., from either small excess revenues or deficits to strong positive cash flow (Figure 2).

Although income from application fees has increased in terms of dollars, the percentage contribution to income has decreased (Figure 3). It is still substantially larger percentage-wise than members' dues. The income from the CEC courses is becoming a significant contributor to income. Miscellaneous sources of revenue include income from interest and the HPS grant. Although the Academy's cash reserves have increased significantly, revenue from interest has not increased proportionately because of the offset of decreasing interest rates.

The Academy Executive Committee took a number of actions to implement a long range financial plan. The Academy Executive Committee decided that given the improved financial situation, the yearly grant of \$2,000 from HPS was no longer necessary effective FY 93. That grant had been an important stable source of income in earlier years and was much appreciated. The action to close out the potential liability for refunds for past examinations has been mentioned. Prudent fiscal practice suggests that the Academy maintain a cash reserve for contingencies equal to about one year's operating costs. A target of a cash reserve of \$125,000 was established by the Executive Committee. Finally the Finance Committee has been asked by the Executive Committee to look at the sources of funding for the Academy and the costs for carrying out the certification process and the maintenance program for CHPs and develop recommendations for future funding of Academy operations.

Figure 1

ABHP/AAHP
Income and Expenditures FY 85-93
Number of Applicants FY 88-93

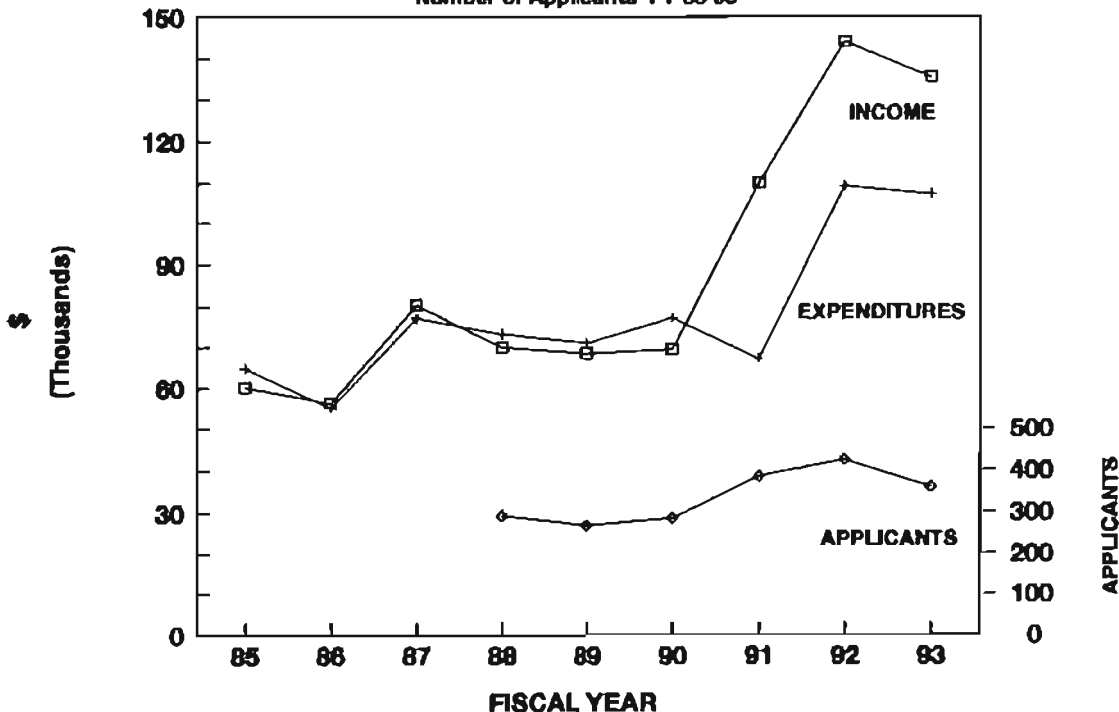


Figure 2

ABHP/AAHP NET INCOME FY 85-93

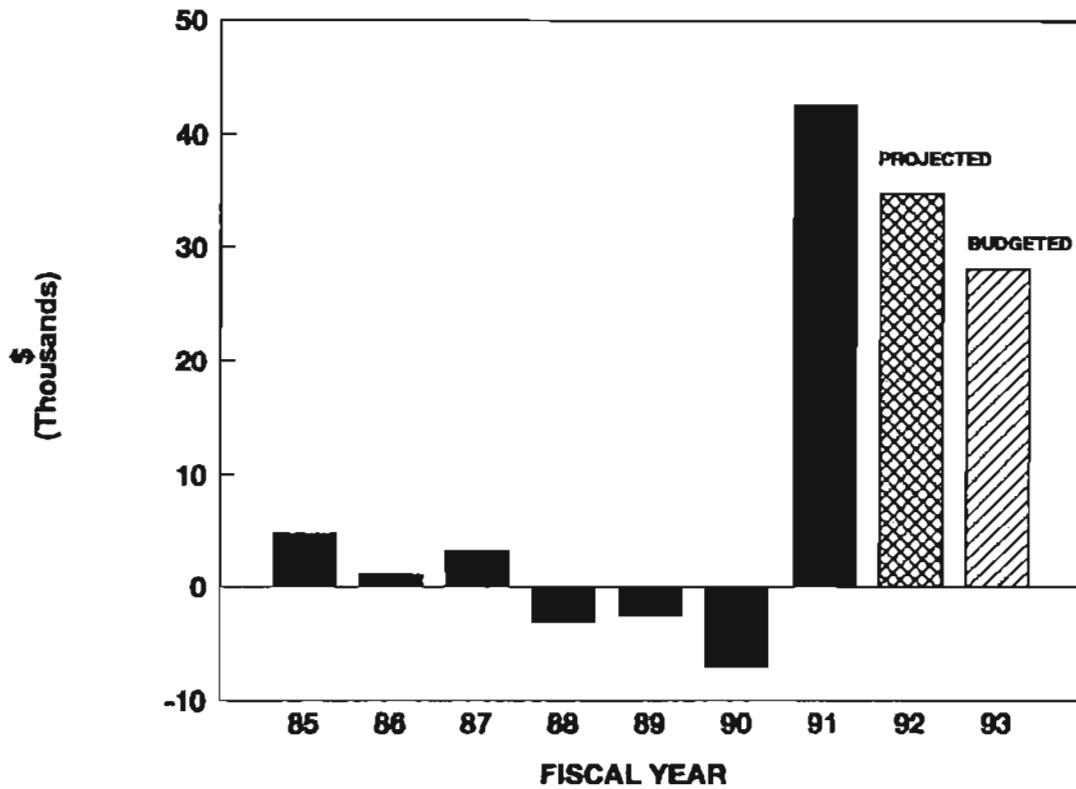
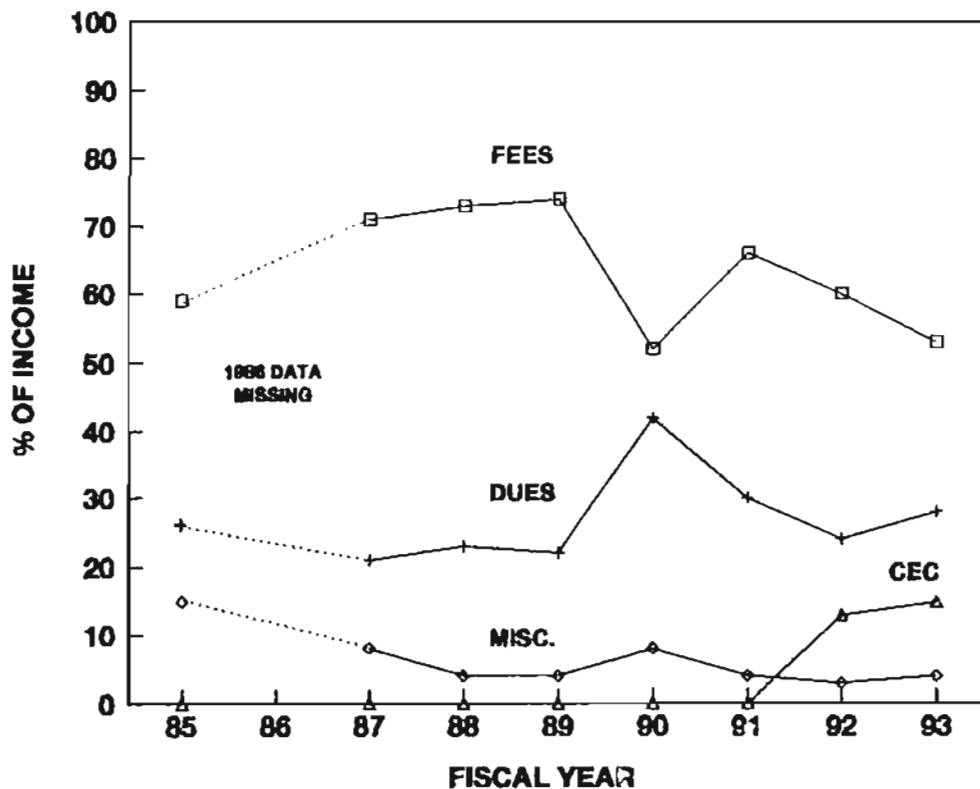


Figure 3

ABHP/AAHP SOURCES OF INCOME FY 85-93



WILLIAM B. McADAMS AWARD

The William B. 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, ABHP, teaching or other assistance in increasing knowledge of HPs, or 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 chairman for 1993, Ruth E. McBurney (ABHP Vice Chair, '93), detailing the rationale for your nomination and giving background information on your nominee. Other Committee members will include Carl H. Distenfeld (ABHP Chair, '93) and Paul S. Rohwer (AAHP Past President '93). **Nominations** should be sent to the McAdams Award Committee Chairman by **March 1, 1993**, to be considered for the 1993 award. Address your nomination letter to:

Ruth E. McBurney, CHP
Texas Dept. of Health
Bureau of Radiation Control
1100 W. 49th
Austin, TX 78756 ■

1992 CITATION
WILLIAM B. McADAMS OUTSTANDING SERVICE AWARD

Presented to Lester A. Slaback, Jr., CHP

At the 37th Annual Health Physics Society Meeting in Columbus, Ohio, the AAHP and ABHP recognized Lester A. Slaback, Jr., with the fourth annual William B. McAdams Award. The following is the citation for this award.

Shortly after its organization, the Health Physics Society established a committee to study the need for certification of health physicists and to develop plans for certification, if this appeared to be desirable. The Certification Committee membership included an energetic and farsighted young man by the name of William B. McAdams. After an intensive study, the Committee recommended that an American Board of Health Physics (ABHP) be established to develop standards and procedures, to examine candidates, and to issue written proof of certification to individuals who satisfied the requirements established by the ABHP. The Board of Directors of the Society decided that these recommendations had merit and appointed a temporary ABHP on November 8, 1958. The Chairman of the temporary ABHP was none other than William McAdams.

The temporary ABHP developed a set of minimum requirements for certification. At the Annual Meeting of the Society in June 1959, these matters were discussed in an open meeting and there was general support for the plan. The Board of Directors of the Society formally established the ABHP by approving an amendment to the By-Laws of the Society in October 1959 and appointed William McAdams as Chairman. Under his leadership, the ABHP worked diligently to become incorporated in the state of New York in December 1960, allowing the ABHP to achieve its independent identity.

Three years ago, on the 30th anniversary of the ABHP, we recognized two of the pioneers who contributed substantially to our formation and early development - William McAdams, as the first Chairman of the ABHP, and Jack Healy, as the inaugural winner of the William B. McAdams Outstanding Service Award to annually recognize those individuals who have made significant contributions to the advancement of professionalism and

the health physics certification. This award is named for the person 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 second recipient of the award was H. Wade Patterson, an emeritus CHP who was involved with the certification process for over a decade. Last year we recognized Richard R. Bowers for his numerous contributions to the activities of ABHP, active involvement in the certification process for nearly two decades, and the elevation of professionalism, especially in the power reactor health physics community.

This year we announce with pleasure the fourth recipient of the William B. McAdams Outstanding Service Award, Lester A. Slaback, Jr. Les has been involved in the certification process and has made many contributions to the professional advancement of the field of health physics. In the early 1970s, he helped to continue the development of the Baltimore-Washington Chapter Exam Preparation Course, probably the oldest and one of the best (if not the best) of its kind. He has served as lecturer for this and other preparational courses and was instrumental in the successful conduct of a number of topical seminars in the field of health physics. Les has worked continuously to make the Chapter's basic radiological health course successful, especially in reaching professionals in other scientific fields and policy analysts. He was also a driving force in the formation of the Health Physics Society's Professional Enrichment Program in 1983.

Les served as Chairman of the ABHP Continuing Education Panel from 1976-1980, during the Panel's formative years. In 1982, Les was appointed to the ABHP, where he served as the Vice Chair in 1983 and 1984, and as the Chair in 1985. Les was a member of the initial ABHP Part I Panel and is still serving on that group. He is also currently serving as a Director on the American Academy of Health Physics Executive Committee.

A true professional health physicist, Les has made many contributions to the field during his career. He served as a consultant to the Defense Nuclear Agency on the cleanup of Enewetak. He was also a supervisory health physicist at the National Bureau of Standards, now National Institute of Standards and Technology (NIST), in Accelerators and Laboratory Health Physics, and is currently serving at the NIST Research Reactor. Les has served on the NCRP workgroup for Accelerator Radiation Protection and is currently a member of the Committee on Interagency Radiation Research and Policy Coordination (CIRRPC) Occupational Radiation Protection Research Subpanel.

Through the years, Les has been a steady contributor to the Certification programs, providing a veritable stream of ideas, proposals, analyses and constructive criticisms. Only one example is the recent submission of 47 sample Part I questions worthy of Panel review. He also participated in the analysis of ten years of Part II test data. In addition, Les has maintained the highest standards of professionalism, a continued enthusiasm and a clever sense of humor.

There can be but few persons within the field who have been more consistent and more productive in their devotion to advancement of the profession or more dedicated to the certification process. Hence, it is with great pride and appreciation that we recognize Les Slaback, Jr., as this year's recipient of the William McAdams Outstanding Service Award.

Ruth E. McBurney, Chair ABHP Awards Committee, Vice Chairman ABHP
Carl H. Distenfeld, Chairman ABHP
John A. Auxier, Past President AAHP ■

1992 WILLIAM B. McADAMS
OUTSTANDING SERVICE
AWARD
ACCEPTANCE!

Lester A. Slaback, Jr., CHP



Thank you. I'm overwhelmed by this award. When I look at the previous recipients of the William McAdams Award (John Healy (89), H. Wade Patterson (90), Richard Bowers (91)), I'm even more overwhelmed. This is truly illustrious company.

After being told of this award I took some time to look back over my 16(1) years of involvement with ABHP activities. I consider those to be some of the best and most rewarding of my career. The people I've worked with, and the things we have accomplished have been rewarding in every sense of the word.

The essential nature of ABHP activities is that they are the work and product of many. Clearly the cited accomplishments are not mine, but collectively those of the many people with whom I have worked. I cannot begin to list all those from whom I have learned so much, and won't for the obvious reasons.

My various involvements with the ABHP and the Academy have been an unmatched education in every health physics specialty imaginable. I consider every year a gift and every person I've worked with a friend. And many of you are here and had a direct hand in this. I thank you again, both for this award and your efforts in nominating me for it.

And I do not understand why the Academy is not flooded by candidates demanding their fair share of time on the panels and the board. I feel like a thief for all the time I've had, but who am I to look a gift horse in the mouth. Time spent on the various ABHP panels is an experience not to be missed. The wealth of the Academy is in the excellence of its membership. Having served one year reviewing renewal applications I know first hand just how outstanding this collection of people are. I urge you all to find time to get involved.

Lastly, I would like to point out that 50% of the McAdams Award recipients are accelerator HPs, so I fully expect that this will be reflected in the content of the exam next year.

¹Those who were present at the Academy meeting might recognize that these notes are only an approximation of what I said. And they are only a token of my gratitude for this award. ■

**Nominations for the William B. McAdams Outstanding Service Award
are due March 1, 1993.**

Contact the Vice Chair, ABHP.

LETTERS:

Robert G. Wisstnk, CHP

My copy of the February 1992 *CHP News* arrived on April 6, 1992, 5 days after the NCRP Annual Meeting which was highlighted on pages 12 and 13.

Although this did not affect me personally and I attended the NCRP meeting, I want to bring this situation to your attention so that similar situations can be avoided in the future. ■

[Point well taken. Please see "From the Editor" for a discussion of our attempts to remedy this problem. Thanks, Nancy ■]

FROM THE EDITOR:

Nancy M. Daugherty, CHP

This issue of the *CHP News* marks some additional developments in the AAHP Executive Committee's attempts to increase the visibility and attraction of ABHP certification, as well as to better serve the needs of CHPs. For the first time the *CHP News* is being distributed to all members of the Health Physics Society by attachment to the *Health Physics Society's Newsletter*. Our thanks to Genevieve S. Roessler, Newsletter editor, and Amy J. Kortuem, Newsletter managing editor, for making this possible.

There are several benefits to having this wider distribution for the *CHP News*:

- An important goal of the AAHP is to increase the visibility of ABHP certification so that more HPs will be attracted to and pursue certification. (See Paul Rohwer's discussion of the AAHP mission in the "President's Report.") Distribution through the *HPS Newsletter* allows us to better acquaint noncertified HPs with the certification process, activities, and value.

- Distribution through the *HPS Newsletter* gives your *CHP News* editor, me, a hard and fast deadline by which editions of the News must be finished. This forces me to better deal with my own and other contributors' tendencies toward procrastination. In addition, mail delivery of the *HPS Newsletter* seems to be much more timely and dependable. I'm not sure why this is true. We've both been using bulk mail. However, the Newsletter seems to be much less variable in the time between mailing and delivery.

- Distribution with the Newsletter fosters increased communication and heightened rapport between News and Newsletter staffs, always a benefit to everybody.

There is a drawback to this distribution, however, and that is cost. Because of the significant increase in costs for printing and mailing (There are a lot more HPs than CHPs, and the AAHP will be paying for all added expenses.), costs for the *CHP News* will increase.

It's important, therefore that the AAHP receive feedback from both CHPs and noncertified HPs alike.

Do you see a real benefit to this distribution that you believe justifies the added expense? Please let us hear from you.

During our discussions of News distribution, a curiosity resurfaced that we had seen in considerations of a separate CHP membership handbook versus increased visibility for CHPs in the HPS membership handbook. That is, there are a number of CHPs who are not members of the HPS. We are puzzled as to why this occurs. Does it impede those CHPs' abilities to stay current in the field? We'd like to hear from some of you about this. We will be providing separate mailing of the *CHP News* to those individuals.

Another change is in the works for publicizing CHP activities and information. Beginning with the next *HPS Newsletter*, the AAHP will have a "CHP Corner" column as a regular feature in the Newsletter. This will allow us to limit our current *CHP News* publication schedule to two editions a year until there is a genuine need for more frequent issues. However, we will be better able to publish time-dated news and deadlines that cannot wait for the next News edition. Please feel free to send your *CHP News* editor contributions to the "CHP Corner." Space will be limited, so we cannot guarantee that all items will be published, but we will try. ■

IONIZING RADIATION PROTECTION STANDARDS IN THE USA

A. N. Tschaeché, CHP

Purpose

The purpose of this paper is to set forth how basic ionizing radiation protection standards have been developed in the USA, how the current standards-setting system does not provide for significant input by radiation workers or members of the public who may be affected by those standards to the standards-setting process, and how the private sector has not established basic ionizing radiation protection standards using the voluntary standards-setting system in the USA.

The purpose is also to establish a basis for the [American] Academy of Health Physics to decide whether or not to recommend that ANSI Committee N-13 on Radiation Protection undertake the development of basic ionizing radiation protection standards for the USA.

Development of Ionizing Radiation Protection Standards in the USA

Except in one case, the development of basic ionizing radiation protection standards (BIPS) in the USA has been exclusively within the purview of the public sector. The exception was the development in the late 1960s of a BIPS for uranium miners by what is now ANSI Committee N-13.

In general, the recommendations of the International Commission on Radiological Protection (ICRP) and of the National Council on Radiation Protection and Measurements (NCRP) in the United States are the basis for all BIPS in the USA. The Federal, state, county, and city regulators have based their legislatively-imposed BIPS on those recommendations.

Early in the 1900s, the National Bureau of Standards Handbooks provided guidance for limitation of exposure to x rays. By 1950, the ICRP and the NCRP were providing recommendations for dose limitation among other things. In 1956, the AEC published 10 CFR 20 that it called "Standards for Protection Against Radiation." Those standards were (and continue to be) regulatory in nature and, although public participation is invited, unless an individual knows about the *Federal Register*, significant input by radiation workers or members of the public does not occur in the development of those standards. Those standards apply only to AEC licensees, and only for source, special nuclear, and byproduct material.

The AEC in 1956 also was responsible for production of nuclear weapons (the General Manager's side of the house). AEC contractors worked to requirements set forth in the AEC Manual. Chapter 0529 of that manual set forth radiation protection standards for AEC contractors, their employees, and members of the public outside AEC sites. These standards were promulgated with no public input.

It is of interest to note that both the 0529 and 10 CFR 20 BIPS were similar and compatible with ICRP and NCRP recommendations and that neither the NCRP nor the ICRP recommendations had any public or radiation worker input to their development.

There were subtle differences between 0529 and 10 CFR 20 BIPS. For example, internal exposure was not required to be added to external exposure by 10 CFR 20. In 10 CFR 20, limits for internal exposure were expressed as limits on concentrations of radionuclides in air and water to which radiation workers or members of the public could be exposed. Those limits were independent of and separate from the limits for external exposure. Chapter 0529 internal exposure limits were based on body burdens as determined by bioassay analysis results and metabolic models. In some cases where the whole body was the critical organ, internal exposures were to be added to external exposures for purposes of comparison with limits.

So even in the AEC, the BIPS were not identical for licensees and contractors.

Currently (1992) even the ICRP and NCRP have differences in their recommendations. The ICRP (in ICRP 60) recommends 100 mSv averaged over 5 years (20 mSv/yr average) with no dose in any year to exceed 50 mSv. There is no lifetime dose limit. The NCRP in a new draft recommendation keeps the 50 mSv per year limit and adds a lifetime limit of ND, where N is the age in years and D equals 10 mSv.

The NRC in the new 10 CFR 20 does not follow exactly either ICRP 60 or the draft NCRP recommendation. 10 CFR 20 keeps the 50 mSv per year and has no lifetime limit. The new DOE Radiological Control Manual (that supersedes DOE Order 5480.11) keeps the 50 mSv per year limit and adds the lifetime limit. Both agencies now use committed effective dose equivalent for internal dose.

Since 1974, when the AEC was split into ERDA and the NRC (ERDA is now DOE) and when EPA was created and given the responsibilities that were those of the Federal Radiation Council, there has been a proliferation of Federal and state regulations involving BIPS.

At the Federal level, currently nine agencies promulgate regulatory BIPS: The EPA, NRC, DOE, DOT, FDA, Post Office, DOL, DOE, and DOC. Some 25 or more agreement states promulgate regulatory BIPS. Those BIPS must be compatible with 10 CFR 20. Several other states have regulatory BIPS of various kinds.

However, there are currently no BIPS developed by the private sector under, for example the aegis of ANSI.

For purpose of this discussion, BIPS is defined as ionizing radiation exposure or dose limits or limits derived from fundamental dose limits, risk limits, or other standards on the basis of which the adequacy of radiation protection activities or programs may be judged.

There exists in the Federal Executive Branch of government an organization called the "Committee on Interagency Radiation Research and Policy Coordination (CIRRPC)." Its overall charge is to coordinate radiation matters between agencies, evaluate radiation research, and provide advice on the formulation of radiation policy. In July 1988, in response to a request by CIRRPC, Oak Ridge Associated Universities (ORAU) published ORAU 88/F-11, a *Compendium of Major U. S. Radiation Protection Standards and Guides: Legal and Technical Facts*.

The conclusions and recommendations section of that document state in part: "A cursory review of the legal and technical facts contained in many of the basic U. S. radiation standards suggests that the standards are numerous and complex, principally control activities that make relatively small contributions to the overall U. S. population dose, have become more restrictive over time, and follow no common rationale in achieving public health objectives." It has been my experience during 36 years as a health physicist that the conclusions of that study are accurate.

The subject of BIPS has been discussed on and off at N-13 meetings over the last 20 years. However, N-13 members have not, up to now, thought that BIPS should be developed by N-13. Many organizations now exist that did not before the 1970s. Several of those organizations have expressed concerns about BIPS.

For example, the Natural Resources Defense Council has now taken legal action to try and force the current limit for radiation workers to be lowered to 5 mSv/yr. Members of other organizations, such as the Sierra Club, Friends of the Earth, Greenpeace, etc, have expressed concern that the NRC's BIPS are not low enough. There is some sentiment (although not expressed in writing) that perhaps the NRC's BIPS are too low and should be raised. It is worth noting that the NCRP has recommended and NASA has adopted BIPS for astronauts that are shown in the table given below.

Airline flight crews receive doses that approach 10 mSv/yr on some routes. Radon in homes is the source of significant person-sievert dose to the general public. Other technology-enhanced radiation exposes many people to relatively large person-sievert doses. For none of these types of exposure is there a BIPS; even one established by a regulatory agency (EPA's 148 Bq/m³ (4 pCi/l) for radon in homes is not formalized in a regulation or standard).

The private, voluntary standards-making organizations such as ANSI and ASTM are the only organizations in the United States where all interested parties can come together and agree on a nationally-acceptable standard. All other standards-making organizations are driven by what might be called single interests. For example, Federal regulatory agencies must comply with Congressionally-passed laws. Congress is driven by political considerations. Accordingly, in

IONIZING RADIATION EXPOSURE LIMITS FOR ASTRONAUTS (in rem)

<u>Exposure Interval</u>	<u>Deep-Tissue Exposure</u>	<u>Eye Exposure</u>	<u>Skin Exposure</u>
30 Days	25	100	150
Annual	50	200	300
Career	100-400	400	600

Career Exposure:

<u>Sex</u>	<u>Age at start of exposure</u>			
	<u>25</u>	<u>35</u>	<u>45</u>	<u>55</u>
Male	150	250	325	400
Female	100	175	250	300

the last analysis, any BIPS developed by a Federal regulatory agency may be based on political considerations, not necessarily on technical or scientific data. ANSI/ASTM standards can and should be above politics. BIPS in the United States should also be above politics. Currently, they are not in all cases.

OMB Circular A-119 requires Federal agencies to use voluntary standards where they exist and use is practicable. If N-13 develops the BIPS, then the agencies would have something to use. The intention would be to have uniform BIPS for all workers and other groups in the USA.

Accordingly, the question for certified health physicists is: Should the Academy recommend that N-13 develop BIPS?

WHAT ARE THEY UP TO?

Information furnished by :
Lester A. Slaback, Jr., CHP

Food for Thought, from the AIHA:

In March the AIHA mailed a three-page flyer discussing the reasons for their proposed dues increase from \$50 to \$90. Extracts from this include:

- The increase would pay for expanding public relations, establishing a state government relations program, expanding the Federal government relations program, expanding member educational opportunities.
- Direct costs of current member services is \$67, more than the current dues.
- Dues of other similar organizations range from \$80 to \$160, and the AMA is \$400.

- Future plans, discussed in detail, including hiring staff for coordinating state and Federal relations programs and expanding their public relations programs.

The AIHA has relocated its national office to Washington, D.C., as part of this plan of activity.

The Radiological Health Section of APHA is soliciting multiple choice or true/false questions for a computer database relating to radon (where it is found, detection methods, risk, etc). This is for an educational program that targets junior high and high school age students. The question format is 1) less than 6 lines of text in the question and 2) less than two lines in each of up to five answers.

Those who submit at least five questions can send an IBM-PC type 3.5" floppy for a copy of the database and software. Contact Coleman Rosen, Medical Physics Department, Fairfax Hospital,

3300 Gallows Rd., Falls Church, VA 22046, 703-698-3056, fax 703-698-2743. {LAS- Sounds like a bargain to me, but certainly a challenge to avoid the simplistic basic questions 99% of the submittals will likely be.}

The American Board of Medical Physics (ABMP) has decided upon a three level screening structure for their certification process.

- Part I is a written exam to identify those with adequate training and experience and a sufficient base of knowledge in general medical physics.
- Part II is an in-depth written exam on subject matter relating to the candidate's specialty area. The specialties include Radiation Oncology Physics, Diagnostic Imaging Physics, and Hyperthermia Physics.
- Part III is an oral exam to evaluate the candidates' clinical experience, clinical judgement, and clinical problem solving ability.

{LAS- note that this is not the ABR Radiological Physics certification process. This is a new program.}

LAS commentary - given the low profile and inactivity of the HPS and the AAHP one wonders, in view of the above, if we are shirking our responsibilities, too passive, have our own parochial view of life in this complex regulatory and legal world, or are simply taking time to admire the blossoms along the path of life?

DOE/EML note:

On 24 April EML mailed an update to their procedure's manual (HASL-300). It is an excellent manual so make certain you have received the update, if you have it.

Council on Ionizing Radiation Measurement and Standards (CIRMS)

Newly organized to represent users of ionizing radiation, to provide a forum for discussing measurement and standards problems, to disseminate information, and to present workshops to advance ionizing radiation technology. The first meeting was 22-23 Oct 1992.

Officers are: President - Marshall Cleland, First Vice-president - Peter Almond, Second VP - R. Thomas Bell, and Secretary - Elmer Eisenhower.

AAPM Newsletter (March/April 1992)

ABR has announced that the radiation therapy certifications of physicians will be limited to ten (10) years. The desirability of recertification in physics is under discussion.

Also: The accident of the Sagittaire linear accelerator at Zaragoza, Spain was summarized:

Following a breakdown, a "repair," and operation with non-standard display, 21 patients were irradiated with what, in hindsight, were incorrect beam

conditions (i.e., 36 MeV for all irradiations). To date, 18 have died, albeit not necessarily due to the erroneous conditions. Salient points are -

1. A bad equipment repair.
2. The bypass of the accelerator safety interlocks.
3. The failure to give the Physics Service notice of the malfunction and its repair.
4. The attribution of the energy indication to a meter malfunction.
5. The lack of specific indicators of the bypassed safety mechanisms in the accelerator.
6. The lack of treatment reproducibility checks.
7. The failure to interpret the complaints of the overirradiated patients as a warning signal from the very beginning.

See the AAPM newsletter for a more detailed description of the series of events.

AAPM Newsletter (July/Aug 92)

A decision was made to relocate the AAPM headquarters at the proposed American Center of Physics building in College Park, Md. The ACP building is shared by the American Physical Society (APS), the American Association of Physics Teachers, and the American Institute of Physics. The move will occur around 1 Jan 1994. ■

1992 ABHP CERTIFICATION EXAM RESULTS

The following individuals passed Part I of the 1992 American Board of Health Physics Certification Examination:

Barlow, Agnes E.
 Beard, Travis N.
 Berkshire, Douglas J.
 Birks, Donald M.
 Bishop, Robert V.
 Bobek, Leo M.
 Bolch, W. Emmett
 Boone, Douglas M.
 Brey, Richard R.
 Brooks, Michael D.
 Brown, Edmund
 Buddenbaum, John E.
 Chen, Martin
 Chundrik, Brian
 Cotter, Ronald R.
 Day, David A.
 Demetroulakos, Lucas
 Donegan, Michael J.
 Durrer, Russell E.
 Dusenbury, Bernard D.
 Edwards, Larry L.
 Emery, Robert J.
 Ethridge, David W.
 Foldesi, Leslie P.
 Fomenko, James
 Fox-Williams, Kathleen
 Furfaro, James
 Gadd, Millan S.
 Galloway, Gary R.
 Geber, Kurt R.
 Greco, Joseph M.
 Hall, David M.
 Hall, Michael J.
 Hallman, Anne K.
 Hamley, Steven A.

Hinderliter, Brian R.
 Hoover, Raymond A.
 Horvath, Steve
 Isefin, Louis H.
 Iversen, Dean C.
 Kasper, Kenneth M.
 Lee, David W.
 Linkenheil, Deron G.
 Linsley, Mark E.
 Lowe, John D.
 Mao, Xiaotian
 McCarthy, Daniel P.
 McFarlane, David L.
 McIntyre, Kathleen
 McKinnon, Michael D.
 McLay, Penny A.
 Morrissette, Remi R.
 Mueller, Jeffrey S.
 Murphy, Brent D.
 Neeson, Paul M.
 Nelson, Kevin L.
 Olsen, Clifford A.
 Olsen, Peter C.
 Oxley, Cheryl
 Palmer, Henry E.
 Pilo, Anthony
 Planko, Michael M.
 Plott, Carmine
 Polehn, Jeanie
 Quillin, John G.
 Rademacher, Steven E.
 Reciniello, Richard N.
 Riahi, Sandy Jo
 Riley, John E.
 Rumick, Matthew
 Salmon, Kevin W.

Schanzenbach, Roger A.
 Schwartz, Craig A.
 Schweitzer, James F.
 Scircle, John A.
 Scislowicz, Casimir W.
 Scott, Brian G.
 Shindle, Sandra F.
 Silvla, Learay J.
 Slagle, Norman
 Sloan, Harry J.
 Smith, Ronald E.
 Stafford, Herbert J.
 Stoetzel, Gregory
 Terrell, Gary F.
 Thomas, Elyse
 Thomas, Johnafred
 Thomson, Brian C.
 Tracy, James W.
 Tritch, Tristan
 Tunno, Gregory
 Twiggs, James A.
 Vala, Michael J.
 Vaughn, Terry Lee
 Ward, Winston E.
 Webb, James
 Wehrman, Elizabeth
 Whalen, Michael P.
 Wiley, Albert L.
 Williams, Dane
 Willison, James S.
 Winstanley, James L.
 Zibung, Bruce R.
 Zobel, Steven G.
 Zweifel, Daniel N.

■ CHP NEWS ■

The following individuals were granted Power Reactor Certification in 1992 by the American Board of Health Physics:

Chaney, Harold D.
Courtney, Gregory
Enright, Steven F.

Goetchius, Edward
Hummer, James R.

O'Connell, Peter
Thorne, Michael D.

The following individuals were granted Comprehensive Certification in 1992 by the American Board of Health Physics:

Allen, Douglas L.
Augustine, Frank
Auman, Laurence
Bland, James S.
Bliss, John L.
Bollenbacher, Michael
Brown, David R.
Carathers, Dennis
Coleman, Charles
Collins, Kevin
Cripe, Brian P.
Darman, Joseph
Davidson, Michael
Dobey, Ronald
Doruff, Mark A.
Espanan, Gregory
Farrell, Linda
Gebers, Steven
Gonzalez, Daniel
Gregory, Donald
Griffin, James P.

Haynes, Larry E.
Higginbotham, Jack
Hillman, Debra
James, William R.
Johnson, Graham
Kelly, Michael S.
Kunze, Jay F.
Laferriere, John R.
Lan, Changfuh
Lebda, John
Lonergan, William
Maheras, Steven
Mak, Hon K.
Martel, Christopher
Marx, Douglas R.
McGiff, Thomas
Melanson, Mark A.
Montt, David
Moskun, Gregory
Murray, Kevin L.
Newman, Harry J.

Newman, Jonathan R.
O'Donnell, John J.
Parfitt, Bradley
Peckham, Gregory
Petelka, M. Frank
Poeton, Richard W.
Powell, Gerald
Salsman, John
Scott, Robert A.
Smith, Ronald J.
Spacher, Peter J.
Stetar, Elizabeth
Terry, Robert W.
Thurlow, Ronald
Toohey, Richard E.
Tucker, Jonathan
Ullrich, Elizabeth
Varnado, Keith W.
Vazquez, George
Yates, Carl R.

CONGRATULATIONS TO ALL!

**NOTE: APPLICATIONS FOR THE 1993 EXAM MUST BE POSTMARKED
NO LATER THAN JANUARY 15, 1993!**

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