American Board of Health Physics American Academy of Health Physics

JAN 1990

Dear Colleagues:

It is with mixed emotions that I write this letter. This is the end of my 5 year stint on the ABHP. While I will enjoy the new-found extra time, I will miss the challenging, but always interesting work that the Board gets involved with.

These past 5 years have seen quite a few rather major changes to evaluate and improve the quality of the ABHP Certification process. We have:

Performed a Role Delineation process to define what a CHP does. These HP Domains of Practice are now the model to which the subject matter of the exam must conform. This should lead to more consistent exam content.

Gradually implemented Serial Multiple Choice (SMC) questions into Part II. There is continuing controversy, especially from the Panel members that must write them. SMC questions are much more difficult to properly create, but they provide a more objective means of grading.

Implemented multiple grading on non-SMC questions. First 2, then 3, and now 5 graders score each candidate's answer.

Eliminated the oral exam as a routine option for marginal candidates, as the Board gained confidence in the written exam.

Defined a formal process of appeal for applicants and candidates who disagree with the Board's decisions.

Created a Part I Panel to be responsible for the content and quality of Part I.

As preparation for this year's 30th anniversary of the ABHP, I spent many (many) hours going through old ABHP records, minutes, correspondence, exams, publications, newsletters, and anything else I could find. That was very interesting, but what it really pointed out was how good the early ABHP founders and Board members were. Most of the policies developed in the first 5 years are still here today. Likewise, most of the exam questions of 30 years ago are still good questions today. Those of us on the Board and the three exam panels strongly believe that we have a very high quality and credible certification process. But, we must continue to work to improve it further.

The future of the value of ABHP certification, however, depends on the members of the Academy. You should be proud of your CHP status, and encourage other HPs to seek it. From a selfish standpoint, 70% of our income is from the candidates. Since our expenses are relatively constant, you can see what will happen if the trend of fewer candidates continues.

This leads to the two most important (in my opinion) long range goals of the Academy: 1) implement a stable and equitable source of funding for Board and Academy functions; 2) enhance the perceived value of ABHP certification among the HPs, employers, and regulators.

I wish my friends on future ABHP Boards and AAHP Executive Committees much success in achieving these goals.

Frazier Bronson, CHP Chairman

HIGHLIGHTS OF THE JUNE BOARD MEETING * * * * * * * * * * * * * * * * *

The 1989 summer ABHP Board meeting was held in Albuquerque on June 25th and 26th. All eight Board members and the Secretariat, Kristi Jacobs, were in attendance for both sessions, and were joined by a number of observers, including Academy President Otto Raabe and President Elect Keith Schiager. Over forty agenda items were addressed during the sessions, which included the following items of interest:

Concurrence was given to a new fee structure established by the Academy. The new fees are:

Application \$ 50 per application

Examination \$150 per part

Certification \$100

Maintenance \$ 25 per year

These fees were effective September, 1989, and are applicable to all new candidates for the 1990 exam.

The Board approved a series of special events for the HPS meeting to mark the 30th anniversary of the ABHP. These included an interesting collection of historical documents displayed at the ABHP booth and the establishment of the ABHP/AAHP Outstanding Service Award, named in honor of William McAdams. Details on the award are reported elsewhere in this Newsletter.

New members were appointed to each of the three examination panels, replacing retiring members who have served their four year term:

Part I Panel

New Members Retiring Members

Richard Fry Robert Quillin
Doug Draper Gary Kephart
Robert Miltenberger Peter Littlefield

Part II Comprehensive Panel

New Members Retiring Members

Carol Berger Dean Broga 89 Chair

Frederick Gardner Doug Draper
Edward Maher John Brtis
Roy Osborne Timothy Dzuik

Daniel Strom

Part II Power Reactor Panel

New Members Retiring Members

Eugene Rollins Scott Medling 89 Chair

James Tarpinian Russell Lovell

Henry Kahnhauser

The 1990 Panel Officers are:

Part I Panel

Richard Bowers Chair Jerry Hiatt Vice Chair

Part II Comprehensive Panel

Elizabeth Donnelly Chair Joseph Bevelacqua Vice Chair

Part II Power Reactor Panel

Bruce Meyer Chair George Vargo Vice Chair

The Board wishes to express its appreciation to all retiring panel members, especially the Panel Chairs.

The Board decided to accept a proposal from its testing consultant, Center for Educational Assessment, to assist the ABHP in studying methods for establishing cut-off scores for Part II of the examination.

The academic requirements for early admission to Part I of the examination were discussed in the Board meeting and again at the AAPH Open Meeting. The requirements state that: "Applicants are admitted to Part I of the written examination if they (1) have fulfilled all requirements for an advanced degree in health physics or a closely related field by January 15th of the year in which the exam is to be taken. . . "

The Board accepted a resolution passed by the AAHP Executive Committee to permit publishing typical well scored answers from each Part II exam. These answers would be candidate's answers, not the Board's stock answers, and may not be the only correct answer to a given question. The Board is also considering publishing the names of the top scorers on each exam.

New appointments to the Board were made by the Academy. These are:

Paul Ziemer Ruth McBirney

The new appointees will replace outgoing members:

Frazier Bronson Chair, 88 and 89 Howard Dickson Vice Chair, 88 and 89

The Board completed election of officers for 1990. The election results are:

Leroy Booth Chair
Dale Denham Vice Chair
Kenneth Miller Secretary
Carl Distenfeld Parliamentarian

1989 ABHP CERTIFICATION EXAMINATION * * * * * * * * * * * * * * * * *

The 33rd ABHP Certification Examination was given on June 26, 1989 at twelve sites within the United States. A total of 113 candidates set for Part I, 69 for Part II comprehensive, and 15 for Part II Power Reactor. The Board wishes to thank all proctors and the Exam Site Selection Committee (Bob Van Wyck, Chair, Gerald Davidson and Al Baietti) for making it possible for candidates to take the exam at easily accessible locations. The 1989 proctors were:

<u>Site</u>	Primary Proctor	Alternate Proctors
Albany, NY	William Condon	Robert M. Ryan Max Yeater
Albuquerque, NM	Gary Kephart	Janet Westbrook Larry Jensen
Augusta, GA	Kent Larsen	Charlie Wright
Charlotte, NC	Robert Sorber	Melody Geer
Chicago, IL	Lincoln Hubbard	Steve Butala
Livermore, CA	Curtis Graham	Steve Homann
Lowell, MA	Eric Darois	Fred Straccia
Oak Ridge, TN	Carl Efird	Ron Mlekodaj
Pittsburgh, PA	Ed Durkosh	Michael Sheetz
Richland, WA	Paul Rittmann	Andy Mileham
San Onofre, CA	Linda Bray	Michael Russell
Washington, DC	Joe Logsdon	James Hardin

A STUDY OF CERTIFICATION PRACTICES * * * * * * * * * * * * * * * *

As part of a continuing program to assess and improve its own procedures, the American Board of Health Physics has conducted a study of certification practices of other organizations. Twenty credentialing boards were contacted and asked a series of questions designed to define the methodologies used to certify individuals. The responses have been summarized and compared to ABHP practices.

The organizations contacted included both professional credentialing boards, such as professional engineering registrations and CPA societies, and technician registries, such as the National Registry of Radiation Protection Technologists and the radiography technologists' registry. The majority contacted are in the health and safety industries.

Questionnaire responses are summarized in seven general categories shown below:

1) Candidate qualifications

Professional boards normally require a Bachelor's Degree for entry level testing and a degree plus professional experience for certification. Technician registries require education or training plus extensive experience. All require candidates to spend at least 50% of their time in the applicable field.

2) Examinations

All boards require written exams. All exams contain multiple choice questions, and several are exclusively multiple choice. The remaining have essay/calculational parts. Most exams have core portions covering fundamentals, and advanced or specialty portions. Several offer intermediate or entry level recognition such as "associate" or "in-training" designation for passing the core exam. Oral interviews or exams are given by fewer than 20% of boards. At least half of all exams require two or more parts for certification and are given over two full days.

3) Exam content

Examination boards will usually provide information concerning exam content. The field of knowledge to be tested may be broadly defined in outline form, identifying topical areas to be tested. Additionally, the fraction of exam questions pertaining to each topic may be provided. Several boards have constructed exams to correspond to job task or practice analyses. All boards felt strongly that the exam content adequately represented the relative importance of each subject area to the profession. Specific exam questions are normally prepared by panels or individuals from within the profession, often with assistance from professional testing services.

4) Exam preparation materials

Study guides are available for all exams from the boards or registries. Materials often include sample test questions or actual questions from

previous exams, detailed topical outlines and recommended references. Commercially prepared study documents are available for the large exams (e.g., CPA). Formal study groups and courses may be offered for certain professions.

5) Exam grading

Passing point for multiple choice exams is usually "performance based," and may be determined from the mean score achieved on an exam or by prediction of performance of well prepared candidates (Angoff or similar method). Thus, the actual passing value will vary from exam to exam. Passing points for essay exams appear more subjective (as is the grading) and are usually near the conventional value of 70%, with little or no change from exam to exam.

6) Certification success rates

The percentage of candidates passing the exams varies from exam-to-exam and from year-to-year, but often exceeds 50%. Passing rates below 30% are rare. It is estimated that an initial success rate of about 50% is representative of all testing. Since many boards experience persistent retakes, an ultimate, average success rate near 60% for all candidates seems likely.

7) Number of candidates

The number of applicants depends on the profession and will range from as low as 10 to as high as 70,000 (for CPA) in a year. The fraction of practicing professionals who are certified is difficult to determine, but may be quite high (i.e., 50%) for some professions.

In comparing ABHP practices to those of other credentialing boards, the ABHP seems to be in the mainstream of operation. The basic requirements for certification (education, experience, activity, examination) are consistent with all other groups. The Board has taken great care in defining major performance domains and job tasks based on a health physics role delineation, and in assuring that the examinations appropriately reflect these domains of practice. Passing points are established in conventional manners. Extensive preparation materials are available from the Board in the form of an Examination Preparation Guide, which contains complete Part II exams from previous years, as well as sample Part I questions and a reference listing. Success rates of ABHP candidates is in the 40%-50% range, not significantly different from the average of all boards.

Three subjects of interest are currently under study by the Board. The first concerns methods of establishing appropriate passing point values for the written portion (Part II) of the exam. The Board, with its testing consultant, will review current policy to determine if alternate methods are desirable.

A second item is to increase the fraction of health physicists who are certified, since the current value fo 10-15% appears to be lower than for other professions. The obvious solution is to attract more candidates, since the success rate is reasonably stable.

Finally, the Board is evaluating the trend toward replacing essay questions with multiple choice questions. The advantage of this process is to eliminate

subjectivity in grading. However, it is not clear that multiple choice (or serial multiple choice) questions can be constructed in a manner that will serve the same purposes, or achieve the same goals, as essay questions. Evaluations are continuing.

The results of this study show that the procedures used by the American Board of Health Physics to certify individuals are equal to, and in some cases superior to, practices employed by other boards.

ABHP/AAHP OUTSTANDING SERVICE AWARD * * * * * * * * * * * * * * *

Earlier this year, the Board passed a resolution creating an annual award 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. This award is named for William McAdams, the first ABHP Chairman.

The award committee consists of the ABHP Chair, the ABHP Vice Chair, who shall act as award committee chair, and the AAHP immediate Past President. Nominations for the award may also be made by any three CHP's.

The first William McAdams Outstanding Service Award was presented at the HPS Awards Banquet during the Albuquerque meeting to John W. (Jack) Healy. The formal citation reads:

CITATION

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 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. After carefully reviewing the progessional background of 100 selected individuals believed to be representative of those recognized as competent health physicists, these names were submitted to the membership of the Society for comment. Included on that list was another mover and shaker in the certification movement by the name of John W. (Jack) Healy.

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.

William McAdams was appointed Chairman and Jack Healy became Secretary-Treasurer of the inaugural ABHP. The ABHP, under McAdam's leadership, worked diligently to become incorporated in the state of New York in December, 1960. This incorportion allowed the ABHP to achieve its independent identity. We were told that this was the first time New York had ever incoorporated a certification body.

This year marks the thirtieth anniversary of the ABHP. What better time to recognize two of the pioneers who contributed so substantially to our formation and early development? Consequently I am pleased to announce the inauguration of the William McAdams Outstanding Service Award to annually 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 second person to be honored today is the first recipient of the William McAdams Outstanding Service Award. This pioneer kept the certification program on track when Elda Anderson, the second Chairman of the ABHP, fell ill only a few months into her term of office. Jack took over the Chairmanship to finish her term and then served an additional year as Chairman. During this critical time, he also developed the Code of Ethics which constitutes the backbone of the CHP's ethical standards to this day. Jack is known to many as a witty, unpretentious and versatile health physicist, and as the epitome of an applied Certified Health Physicist. It is most fitting that today we should recognize Jack Healy as the first recipient of the William McAdams Outstanding Service Award.

Granted June 1989

Howard Dickson, Chair Awards Committee, Vice Chairman ABHP

Frazier Bronson, Chairman ABHP

John Horan, Past President AAHP

CALL FOR NOMINATIONS * * * * * * * *

The inaugural William McAdams Outstanding Service Award was presented to Jack Healy in 1989. Now we are soliciting nominations for the 1990 award. The William McAdams Outstanding Service Award is to be awarded annually to recognize a certified health physicist (CHP) who has made an especially outstanding contribution to the advancement of professionalism in health physics and to the certification process. All CHPs, whether currently active or not, are eligible and posthumous awards are permitted. Candidates will be judged on their service to the CHP community through outstanding and extended work on:

- · ABHP Examination Panels
- ABHP Board
- · AAHP Executive Committee
- AAHP Committees
- Continuing Education
- Teaching or other assistance in increasing knowledge/skills of health physicists
- · Other areas that enhance the professionalism of health physicists

All AAHP members are encouraged to submit nominations. Present your nomination in a letter to the Awards Committee detailing the rationale for your nomination and giving background information on your nominee. The 1990 awards committee consists of:

Dale Denham, Chairman Otto Raabe Lee Booth

Address your letter to:

Dale Denham 96 Hodges Ct. Richland, WA 99352

CERTIFICATION VS. LICENSING

An old issue has recently become a hot topic again. Our colleagues in the American Academy of Industrial Hygiene (AAIH) have a renewed concern over the licensing activity going on in many states that has direct impact on their profession and ours.

In the eyes of the law, a professional is someone whose performance conforms

to established ethical and technical standards. Professionals hold specialized knowledge and standardized academic preparation. These factors limit entry into the profession to the truly qualified. Certification by ABHP partially satisfies these requirements, except for the lack of accreditation for academic programs. The law also requires professionals to have a disiplinary mechanism. Some professions, such as medicine and law, self regulate through boards of review where professionals judge their peers. Health physics currently has no equivalent mechanism.

Certification, on the other hand, is voluntary and means recognition by an association or technical organization. If you take certification and impose the criteria above, and throw in oversight by a government agency, you have the makings of a "professional" in the eyes of the law.

Why is this important? Because the laws can be written to include your discipline and ensure that fakers, charlatans and the generally unqualifed do not practice your profession. It also means that, as a professional, only you will be allowed to engage in certain specified activities.

Presently, the industrial hygienist have discovered professional licensing or registration activities being conducted in 27 states and Canada, which could impose restrictions on the rights of industrial hygienists to engage in certain activities such as noise surveys, asbestos abatement and air sampling. The particular impact on health physics is unknown, but licensing actions for radon measurement and abatement are not uncommon. We need to investigate and work with the AAIH to learn more about this insidious hazard to our profession. The AAIH has formed a standing committee on licensing and registration to help define the issue, coordinate with other associations (such as AAHP) and recommend actions the AAIH might take. This issue is very hard to track on a state-by-state basis. If any of you are aware of regulatory activity in your state, please feel free to contact AAHP officers or Jerry Martin, Chairman of Professional Development Committee.

Whether you are pro or con regarding licensing, you need to be aware that we as a profession may be forced into some sort of action or run the risk of being legislated out of activities we rightfully consider to be the proper role of health physicists. The licensing issue is not apt to go away and should increase in importance in the near term. Please take some time to acquaint yourself with what licensing means and what is at stake. You may find yourself having to take a stand in the near future.

USE OF NEW CONTINUING EDUCATION CREDIT SYSTEM * * * * * * * * * * * * *

Some of you are beginning to use the new continuing education credit (CEC) system on certification renewal applications. Early evidence suggests some misunderstandings regarding proper use of this CEC system. In particular, there seems to be a lack of understanding regarding what activities have been "pre-approved" for credit. The February 1989 ABHP/AAHP Newsletter provided excellent guidance on this subject. That guidance is reproduced here for you convenience. Any activity that has not been specifically pre-approved must be submitted to the Continuing Education Committee of AAHP for approval and awarding of CEC's.

PRE-APPROVED ACTIVITIES * * * * * * * * * *

Group	Α	 Formal	Educational	Activities:
	-	 		

Group A - Format Educational Activities:	
Health Physics Summer School	32 credits
College Course - related engineering, science, medical, etc.	4 per semester hour or 3 per quarter
Short Course, seminar, or workshop -	
 HPS continuing education lectures at mid- year or annual meeting (1 hour lecture) 	2 CEC each lecture
 HPS professional enrichment program lectures at annual meeting (2 hr. lecture) 	4 CEC each lecture
Short courses or workshops - related engineering, science	None pre-approved at this time
Group B - Publication, Reports, Presentations	
Book: Health physics or health physics related book-single author (Credit for joint authorship will be determined by the Committee.)	No pre-approval; sub- mit upon publication
Publications; journal article - HPS Journal Radiation Research	16 CECs maximum per publication
Radiation Protection Management Journal of Nuclear Medicine	
Paper Presentations at meetings - HPS Annual or Mid-year Meeting American Association of Physicists in Medicine American Nuclear Safety - Radiation and Shielding Division	8 CECs 8 CECs 8 CECs
American Nuclear Society (other) American Chemical Society - Nuclear Chemisty Division	4 CECs 8 CECs
American Chemical Society (other) American Industrial Hygiene Association - Health Physics Topic	4 CECs 8 CECs
American Industrial Hygiene Association - Other	4 CECs
<pre>Instructor - College Courses - (only if not a faculty member)</pre>	None pre-approved at this time
Lecture Presentation - (only if not primary responsibility)	

· HPS Continuing Education Lecture at

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2 CECs each

mid-year or annual meeting (1 hr lecture) HPS Professional Enrichment Program 4 CECs each HPS Annual Meeting (2 hr. lecture) Group C - Professional Society Participation -Scientific Meetings - National and Regional: 2 credits per 1/2 day up to a maximum of 12 **HPS** ANS per meeting **AAPM** AIHA NCRP ACS SNM **CRCPD RSNA** Annual Conference on Bioassay, Analytical, and Environmental Radiochemistry Local Chapter Meetings: 2 credits per meeting **HPS** ANS **AAPM** AIHA National level Health Physics related technical 12 credits per 4-year or standards committee: period HPS standards committee ANS **AAPM** ANSI Standards Committee **NCRP** ABHP Exam Panels

Group D - Other Professional Activities -

Professional Self Development

Non pre-approved at this time (determined on an individual basis)

NEWS FROM THE AMERICAN ACADEMY OF HEALTH PHYSICS

From John R. Horan, Past President

A. Mid-year Executive Committee Meeting

A mid-year meeting of the Executive Committee, AAHP, was held in Albuquerque, New Mexico on June 27, 1989 during the 34th Annual Meeting of the HPS, under the Chairmanship of Otto Raabe. Eight of the ten members were present along with LaMar Johnson, Chairman of the Nominations Committee, Jerry Martin, Chairman, Professional Development, Lee Booth, incoming Chair ABHP, Kristi Jacobs and Richard Burk, Jr. from the Secretariat, and Regis Greenwood and Dale Denham as observers. All CHPs are welcomed to attend any meetings of the Exectuve Committee.

The Executive Committee Membership for 1989 is as follows:

President Otto Raabe
Past President John Horan
President-Elect Keith Schiager
Secretary Mike Terpilak
Treasurer Nancy Kirner
Joyce Davis
Directors George Holeman

Davis Myers Richard Fry

ABHP Chair Frazier Bronson

B. New Committee Appointments

Nominating:

David J. Strom

Monte J. Sula

William O'Neal

Professional Development George Vargo

Professional Standards Herman Cember, Sydney W. Porter

* Appeals Don Busick, Chairman

* Continuing Education John Mann, Regis Greenwood

The next Maintenance Dues envelope sent out by the Secretariat will contain an area so that diplomats can indicate positions on the Academy or the Board for which they would like to volunteer or be considered as candidates.

C. Nominations for AAHP Offices

Nominees for positions on the Executive Committee beginning January 1990 are:

President Elect John Auxier Charles Meinhold

Secretary Robert Van Wyck Thomas Crites

Director Lester Slaback Wayne R. Hansen

In mid-September, ballots were mailed to all CHPs. We hope you've voted.

It is the intention of the Academy to move future elections to an earlier date so that the new officers can attend the Academy meetings at the HPS Annual Meeting prior to their taking office the following January. This will help them get up to speed earlier and to provide a smoother transition to the active work of the new Executive Committee.

D. Nominations for ABHP

From a list of seven candidates supplied by the Nominating Committee, Paul Ziemer and Ruth McBurney were selected to fill the two openings on the ABHP.

E. By Law Revisions

The major topic for discussion at this meeting was a number of proposed By Law changes to accommodate the growth in the activities of the Academy. Those revisions approved by the Executive Committee were submitted to all CHPs for their vote by a mail ballot in mid-September. Key items were the following:

- A new definition of Certified H.P.
- A definition of Associate Member of the Academy
- A redefinition of CHP Emeritus
- A redefinition of the Executive Committee
- A redefinition of the Finance Committee
- Establishment of the Professional Development Committee

F. Special Session on Professionalism

A special session was organized for the closing of the Annual Meeting sponsored by the AAHP which looked at the attributes of a Professional Society and its members along with a visionary view of the changes in the field of activities in the 1990's. It is hoped this will be a regular feature at other annual meetings.

G. Finance Committee

This committee is not fully functional since the transfer of funds from the ABHP and the AAHP has not been made. The holdup is apparently due to the IRS exemption not having been filed by the Secretariat. This transfer will now take place after September 1, 1989. Effective August 1st the Secretariat will provide the Academy a quarterly spread sheet showing financial status. In addition, a monthly checking account statement will

be provided along with copies of all IRS forms. An accrual systems analysis is to be provided for the past five years. Currently the budget for 1989 reflects a loss of \$5,650 out of an expenditure of \$80,750. The AAHP was incorporated on May 17, 1989.

H. New Business

The Continuing Education System has now been revised. To convert "old" credits to "new" credits one needs to multiply the "old" credits by four. To make the opposite conversion one divides "new" credits by four. Note that while all 64 credits under the new system can be obtained from one group of activities, i.e., such as Formal Education, or Publications and Reports, or Professional Participation, or Professional Self-Development; all 64 credits cannot come from one single activity, i.e., a single college course or a single summer school. The Continuing Education Committee has been requested to develop specific criteria for the pre-approved self-help category.

Each current officer has been requested to develop a job description of their office to be passed on to their successor in January.

Each Committee Chairman has been requested to redefine the charter for their committee based on past experience.

The Exam Site Committee recommended a deadline of December 1st for new appointments to this committee for effective administration of their duties over the following 6 months.

Since individual states are attempting to legislate certification and/or licensing of Health Physicists, the Professional Development Committee will solicit information on such activities from all local chapters of HPS.

A Letter to the Joint Committee on Accreditation of Hospitals (JCAH) and American Association of Physicists in Medicine (AAPM) regarding recognition of CHPs (with pertinent medical experience) as "Qualified Medical Physicists" was approved for President Raabe's signature.

NOTES FROM THE AAHP GENERAL MEETING * * * * * * * * * * * * * * * * *

Eighty-two CHPs attended the 4th General Meeting of the AAHP on 6/28/89 in Albuquerque during the Annual Meeting of the HPS. The meeting lasted 1-1/2 hours with reports from 4 officers, the ABHP Chairman and the Chairman of the Professional Development Committee followed by a spirited Open Forum.

President Otto Raabe reported on the progress made at the Executive Committee Meeting the day before, including the proposal, to be voted on by the active members, to establish a new category of membership, namely "Associate Member of the Academy". The purpose of this move was to encourage those candidates who passed Part I of the Certification Exam to achieve full membership. This action was in direct response to a request made by several CHPs at the prior Annual Meeting. All other items discussed were covered in the preceeding report on the Executive Committee Meeting.

As part of the Past President's report, John Horan requested input on potential topics and speakers to be presented at the Special Session on Professional needs for CHPs at the June, 1990 Anaheim Meeting. The AAHP has a continuing interest in identifying topics on current HP issues to be considered by the HPS Presidents Emeritus Committee which has taken over this function for the Scientific and Public Issues Committee.

The President-Elect, Keith Schiager issued a call for volunteers to serve on AAHP Committees which need to be appointed before January 1, 1990. Also the Nominating Committee has begun to develop a slate of candidates for the Spring 1990 election. Positions to be filled will be President-Elect, Treasurer and a Director. A mail ballot will be completed prior to the June meeting so that the new members of the Executive Committee can be in attendance. There will also be a vacancy on the ABHP for which nominations will be accepted.

The Treasurer, Nancy Kirner, reported the objectives of a balanced budget, building a reserve of one year's operating funds and financial independence from the HPS. Currently the Academy needs additional sources of income, greater cost controls and a reduction in operating costs. Essentially all current costs are related to examinations by the ABHP.

Projects being worked on by the Professional Development Committee are:

- Updated Brochures
 - ABHP Prospectus
 - Certified Health Physicists
- Registration of an AAHP logo
- · Additional Development of the CHP Database
- Clarification of Emeritus status

The Open Forum Topics presented by the members were:

- Possibility of Continuing Education Credits for the development of questions and stock answers for the ABHP exams.
- Suggested increase in AAHP dues to improve the financial situation and to fund the sponsorship of professional workshops.
- Concerns over the use of serial multiple choice questions on Part II exams.
- Possible publication of a list of employers who provide reimbursement for certification exam tuition.

NEXT AAHP EXECUTIVE COMMITTEE MEETING * * * * * * * * * * * * * * * *

The next meeting of the Executive Committee of the AAHP will be in Atlantic City, New Jersey in connection with the Midyear Topical Meeting of the HPS. Academy members who have agenda items for consideration by the Executive Committee should submit them to President-Elect Keith Schiager.

1986 COURSES APPROVED BY THE CONTINUING EDUCATION PANEL

SPONSOR/LOCATION	DATE	CECs
Rio Grande Chapter, HPS	Nov 7, 1986	2
Edison Electric Institute	Sep 2-5, 1986	3
Nederlandse Vereniging	Nov 14, 1986	2
Nederlandse Vereniging	Oct 10, 1986	2
NVS-Netherlands Radiation	Mar 5, 1986	2
US Nuclear Regulatory Comm	Oct 7-9, 1986	2
CRPA	May 5 - 7, 1986	3
USDOE	Jan 23-24, 1986	0
Technical Management Svc	Sep 22-24, 1989	*
USNRC	Oct 27-31, 1986	*
Battelle Pacific NW	Jan -Dec 1986	2
	Rio Grande Chapter, HPS Edison Electric Institute Nederlandse Vereniging Nederlandse Vereniging NVS-Netherlands Radiation US Nuclear Regulatory Comm CRPA USDOE Technical Management Svc USNRC	Rio Grande Chapter, HPS Nov 7, 1986 Edison Electric Institute Sep 2-5, 1986 Nederlandse Vereniging Nov 14, 1986 Nederlandse Vereniging Oct 10, 1986 NVS-Netherlands Radiation Mar 5, 1986 US Nuclear Regulatory Comm Oct 7-9, 1986 CRPA May 5 - 7, 1986 USDOE Jan 23-24, 1986 Technical Management Svc Sep 22-24, 1989 USNRC Oct 27-31, 1986

1987 COURSES APPROVED BY THE CONTINUING EDUCATION PANEL

NUMBER TITLE	SPONSOR/LOCATION	DATE	<u>CECs</u>
87-134 (a)High Level Radioactive Waste Disposal (b)Responsibilities of the HP to Correct Misapplications of HP Data	New England Chapter, HPS	Dec 2, 1987 Sep 30, 1987	1/2 1/2
87-135 Methodology for Calculating Skin Doses	HPS Midyear Topical Meeting	Dec 15, 1987	1
87—136 Post Accident Noble Gas Radioactivity Monitors Calibration & Use of Dose Assess	HPS Midyear Topical Meeting	Dec 15, 1987	1
87-137 Signa Physicist Course	Gen Electric Medical Sys	Sep 14-16, 1987	2
87-138 Internal Dosimetry Calculations using the INDOS Computer Code	University of Lowell	Sept 22, 1987	*
87-139 Response of Geiger Mueller Detectors	TGM Detectors	Dec 3, 1987	*
87-140 Nuclear magnetic Resonance Imaging & Tour of Albany Medical Ctr NMR Facility	Albany Medical Ctr	Apr 2, 1987	*
87-141 ICRP Meeting - Oxford, England	ICRP	1987	*
87-142 ICRP Meeting - COMO	ICRP	Sep 7-12, 1987	3
87-143 Fall Technical Meeting	Rio Grande Chapter, HPS	Nov 13, 1987	2
87-144 Health Physics Committee Meeting	Edision Electric Institute	Sep 22-25, 1987	3
87-145 4th Int'l Symposium on Natural Radiation Environment	Commission of European Comm	Dec 7-11, 1987	3
87-146 Untgangsputen en concepten die een rol	NVS-Nederlandse Vereniging	Nov 27, 1987	2
87-147 All Agreement State Meeting	US Nuclear Regulatory Comm	Oct 7-9, 1987	2
87-148 American Industrial Hygiene Conference	AIHA	May 31 - Jun 5, 1987	2
87-149 New Dev in Aerosol Sampling	AIHA	May 31, 1987	*
87-150 Ontario Hydro Station HPS Conf	Pickering Nuclear Gen Sta	Dec 1 - 2 , 1987	2
87-151 6th Annual Panasonic TLD Meeting	Panasonic Industrial	Jun 15-19, 1987	2
87-152 Internal Dosimetry	Quantum Technology	Oct 13-16, 1987	3

87-153 Internal Dosimetry & Bioassay	US NRC	May 12-13, 1989	2
87-154 Nuclear Power Performance and Safety	IAEA	Sep 28-2 Oct , 1989	4
87-155 NRC Fundamentals of Inspection Course	US NRC	Sep 14-15, 1987	0
87-156 Accredited Safety Auditory Course	Int'l Loss Cont Inst (ILCI)	Sep 21-25, 1987	*
87-157 Health Physics Dept Seminar Series	Battelle, Pacific NW	Jan -Dec 1987	2

1988 COURSES APPROVED BY THE CONTINUING EDUCATION PANEL

NUMBER	TITLE	SPONSOR/LOCATION	DATE	CECs
88-102	1988 Fall Meeting	Cascade Chapter, HPS	Dec 2, 1988	1
88-103	NY State Radiation Safety Officers Conf	Off Radiation & Nuc Safety	Oct 28, 1988	2
88-104	74th RSNA Scientific Assembly	RSNA-AAPM	Nov 27 - 30, 1988	*
88-105	Radiation Accidents	RSNA-AAPM	Nov 28, 1988	1
88-106	Physical Agents Ionizing Radiation	UCLA-Berkeley, Public Health	Fall 1986 Spring 1987 Spring 1988	4
88-107	HP Computer Poster Session	New England Chapter, HPS	Apr 20, 1988	1/2
88-108	NECHPS Annual meeting	New England Chapter, HPS	May 24, 1988	1/2
88-109	Dag van de Biofysica	Vereniging voor Diofysica	Apr 29, 1988	1
88-110	Radiation Protection in Nuclear Energy	Internatinal Atomic Energy	Apr 18-22, 1988	*
88-111	Workshop Technical & Physical Parameters for Quality Assurance in Medical Diagnostic Radiology	Commission of European Comm	Feb 23-25, 1988	5
88-112	Optimization of Image Quality & Patient	Nat'l Radiol Protection Brd	Sept 27-29, 1988	5
88-113	All Agreement State Meeting	US Nuclear Regulatory Comm	Oct 5-7, 1988	2
88-114	Voorlichting over ioniserende straling	NVS-Nederlandse Vereniging	Nov 25, 1988	2
88-115	Management of Electromagnetic Energy Hazards Critical Issues-Relevant Strategies	Rutgers University	Nov 1-3, 1988	3
88-116	Regional Meeting	S E Regional HPS Chapter	May 15 - 17, 1988	2
88-117	Radwaste Packaging, Transportation, & Disposal	Waste Management Grp	Dec 12 - 14, 1988	1
	Intro to Radiological Effluent Technical Specifications and the Offsite Dose Calculation	Quantum Technology 1	Oct 17 -21, 1988	1
88-119	X-Ray & Radioactive Materials Users Conf	IL Dept of Nuclear Safety	Dec 13 -14, 1988	1
88-120	Quality Assur & Envir Occup Health Monit	Rocky Mt Ctr Occup and Envir Health	Apr 27 - 29, 1988	3
88-121	7th Annual TLD Meeting	Panasonic Industrial	Jun 27-Jul 1, 1988	2
88-122	Intro to Internal Dosimetry	Canberra Industries, Inc	Oct 31-Nov 4, 1988	*
88-123	NRC Refresher Site Access Training	USNRC	Feb 4, 1988	0
88-124	Below Regulatory Concern-Radwaste Disposal	University Texas, Engin	Nov 7-11, 1988	4
88-125	Int'l Symposium on Uranium & Electricity	Canadian Nuclear Society	Sep 18-21, 1988	*
88-126	Internal Dose Assessment	Tech Mgt Serv , Inc	Nov 14-18, 1989	*
88-127	Health Physics Dept Seminar Series	Battelle, Pacific NW	Jan -Dec 1988	2

1989 COURSES APPROVED BY THE CONTINUING EDUCATION PANEL

NUMBER TITLE	SPONSOR/LOCATION	DATE	<u>CECs</u>
89-01(a) Health Physics Society 1989 Annual Meeting	Albuquerque, New Mexico	Jun 25-29, 1989	2 per 1/2
(b) Health Physics Society 23rd Mid-Year Meeting	Atlantic City, New Jersey	Feb 4-8, 1990	day to a max of 12#
Annual Meeting of 89-01(c)	American Nuclear Society (ANS)	2 per 1/2 day to
(d) American Association of Physicists in Medicine (AAPM) (e) National Council for Radiation Protection and Measurement (NCRP) (f) Society for Nuclear Medicine (SNM) (g) Radiation Research Society (RRS) (h) Conference of Radiation Control Program Directors (CRCPD) (1) Radiological Society of North America (RSNA)			a max of 12# 2 per day to
(j) Int'l Radiation Protection Association (IRPA) (k) Technical Meeting of Central Rocky Mt Chapte			a max of 12#
89-02 HPS Continuing Education Courses	HPS 1989 Annual Meeting		2 ea
89-03 HPS Professional Enrichment Program	HPS 1989 Annual Meeting		4 ea
89-04 Health Physics Society, 1989 Summer School	St John's College	Jun 18-23, 1989	32#
89-05 Radon Testing Specialist	Radon Detection Services	12 courses in 1989	6#
89-06 Radon Mitigation Specialist	Radon Detection Services	12 courses in 1989	6#
89-07 Occupational Health & Preventive Medicine Workshop	Navy Environ Health Ctr	Mar 11-16, 1989	3#
89-08 Health Physics in Radiation Accidents	Oak Ridge Associated Univ	Jan 16-20, 1989 Sept 11-15, 1989	6# 6#
89-09 Internal Radiation Dosimetry	Reynolds Electrical & Eng	Jan 9-14, 1989	12#
89-10 DOE Radiation Protection Conf	DOE	Jan 31 - Feb 3, 1989	9 8#
89-11 Management of Radiation	US Army Belvoir RD&E	Jun 5-9, 1989	8#
89-12 NRC Rg II RPM Meeting	NRC	Jan 12 - 13, 1989	8#
89-13 Midwinter Chapter meeting	Cascade Chapter, HPS	Feb 17, 1989	2#
89-14 4th Int'l Symposium-Radiation Protection	Soc Radiolog Protection	Jun 4 - 9, 1989	*
89-15 Health Physics of Radon	Penn State Harrisburg	Jan 11-Apr 26, 1989	12#
89-16 Abestos Abatement Projects Proced for Inspect , Monit , Design ,	Harvard School of Public Health	Mar 13-18, 1989	0
89-17 Abestos Abatement Projects Proced for Inspect , Monit , Design ,	Harvard School of Public Health	Oct 30- Nov 4, 1989	0
89-18 Abestos Refresher Course	Harvard School of Public Health	Jan 13, 1989 Apr 7, 1989 July 14, 1989	0 0 0
89-19 ALARA Training Program	General Dynamics Services Reactor Plant Services	1989–1991	12#
89-20 Internal RAdiation Dosimetry	University of Lowell	Jan 23 - May 10, 1989	12#
89-21 Radiation in Buildings	Harvard Sch Public Health	Jun 1-2, 1989 Nov 6-7, 1989	12# 12#
89-22 Planning for Nuclear Emergencies	Harvard Sch Public Health	Jun 19-23, 1989	12#

89–23	Advanced Workshop on Occupational & Envir Radiation Protection	Harvard Sch Public Health	Jul 17-21, 1989	12#
89-24	Control of Occupational Exposures in Nuclear Facilities	Harvard Sch Public Health	May 8-12, 1989	12#
89-25	Management & Disposal of Radioactive Waster	Harvard Sch Public Health	Jul 10-14, 1989	12#
89-26	Occupational & Environ Radiation Protection	Harvard Sch Public Health	Mar 27-31, 1989 Aug 7-11, 1989	12# 12#
89-27	Respiratory Protection & Chemical Protective Clothing	Harvard Sch Public Health	Apr 24-28, 1989	12#
8928	Certification of Biological Safety Cabinets	Harvard Sch Public Health	Jun 12-19, 1989 Aug 21-28, 1989	6# 6#
89–29	In-Place Filter Testing Workshop	Harvard Sch Public Health	Jun 12-16, 1989 Aug 21-25, 1989	12# 12#
89-30	Non-Ionizing Radiations & Assoc Hazards	NC Chapter, HPS	Mar 17-18, 1989	2#
89-31	The Effects of Small Doses of Radiation	IBC Technical Services	Feb 7-8, 1989	4#
89-32	Living with Radiation Risk/Benefit	Long Island Jewish Med Ctr	Mar 9-10, 1989	4#
89-33	1989 Spring Symposium	Great Lakes Chapter, HPS	Apr 12, 1989	2#
89-34	Workshop on Health Physics for DOE	US DOE	Jan 31-Feb 3, 1989	8#
89–35	Emergency Preparedness	Duke Power Company	Jan 1989 Apr 1989 Jul 1989 Oct 1989	4# 4# 4# 4#
89-36	Waste Management '89	University of Arizona	Feb 26-Mar 2, 1989	8#
89-37	Modern Technology In Radiological Physics	RAMPS	Apr 14, 1989	3#
89-38	Failla Memorial Award Lecture	Greater NY Chapter, HPS	Jan 20, 1989	2#
89-39	Advanced Gamma Spectroscopy	Quantum Tehonology	Feb 20-24, 1989	12#
89-40	The Best Kept Secret on Long Island	Greater NY Chapter, HPS	March 31, 1989	2#
89-41	25th Meeting of the Health Physics Committee	Edison Electric Institute	Apr 11-13, 1989	8#
89-42	HPS Professional Enrichment Programs 1a Fundamentas I CKP-26 & ICRP-30 1b) Licensing Requirements for Land Disposal Radioactive Waste Id Radiation Dosimetry & Protection in Diagnostic Radiology 1e) Microdosimetry 1f) Radon and Radon Daughter Measurements 1g) Health Physics Program Audits 2a) Fundamentals of Radon 2b) Below Regulatory Concern 2c) Food Irradiation in the world today 2d) HP Concerns in a Nuclear Medicine Dpt 2e) Real-life Whole Body Counting 2f) Offsite Dose Projections for Radiological 2g) Fundamentals of Lasers and Their Safe Use 2h) Workshop for the ABHP Part I Certification 3a) Fundamentals of Radiation Injury 3b) Managing Mixed Waste 3c) HP Implications of Reactor Water Chemistr 3d) Survey of Medical Instrumentation 3e) Recent Advances in CR-39 Personnel Neutro	l Emergencies ≘ on Exam Ty	June 25–29	4#
	3f) Radiological Characterization of Surface	Soil		

¹e)
1f)
1g)
2a)
2b)
2c)
2d)
2e)
2f)
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3a)
3c)
3d)
3e)

³e) Recent Advances in the second surface Soil Dosimetry
3f) Radiological Characterization of Surface Soil 3g) Self-Assessment of Health Physics Program
3h) ABHP Exam Review - Part II
4a) Fundamentals of Thermoluminescent Dosimetry
4b) HP Implications for Low-Level Radioactive Waste Management
4c) Radiography —Current Status

4d) Medical Boses, Clinical & Occupational
4e) Beta/Hot Particle Dosimetry
4f) Strategies for Design of Air Sampling Systems
4g) Hazard Communications and Professional Liability
MPH-A) Fundamentals of Portable Survey Instruments
MPH-F) Radon Mitigation
TPM-B) Waste Classification-History, Standards &
Requirements for disposal
TPM-C) Industrial Hygiene Concerns for Health Physics
WPH-F) Particle Size and Inhalation Hazard
WPH-E) Relationship of Particle Sizing & Pulmonary Hazard

89-43	Hot Particle Origins Properties and Controls	Palo Verde NGS	Mar 17, 1989 2#	
89-44	Nat'l Radon Conference & Exposition	American Radon Assn	Mar 21~23, 1989 6#	
89-45	Radiation Safety Principles & Procedures	NC State University	May 3-5, 1989 129 Dec 13-15, 1989 129	
89-46	Radioisotope Techniques	NC State University	May 8-12, 1989 127 Dec 18-22, 1989 127	
89-47	Continuing Evolution of Dose Equivalent	Western PA Chapter, HPS	Mar 29, 1989 2#	
89-48	Tenth Annual Meeting	Bioelectromagnetics Society	Jun 23, 1988 4#	
89-49	Spring Meeting	Upstate NY Chapter AAPM	Mar 29, 1989 2#	
89~50	ICRP	ICRP Meeting, Oxford Eng	Oct 1-7, 1989 *	
89-51	Regional Scientific Meeting, HPS	North Carolina Chapter, HPS	May 11-13, 1989 2#	
89-52	Straling, nieuwe risicogetallen	N V S -Nederlandse	Apr 7, 1989 2#	:
89-53	Stralingsbescherming van de consument	Ministerie van Welzinjn	Apr 3-4, 1989 2#	
89-54	Practical Radiation Shielding	GA Institute of Technol	Sep 5-8, 1989 6#	
89-55	OSHA Hazardous Materials	OSHA	Apr 3-7, 1989 1#	!
89-56	Ann'l Mtg Canadian Rad Protection Assn	Radiation Protection Svc	Apr 30 - May3, 1989 6#	!
89-57	AAPM Spring Meeting	AAPM-Northwest Chapter	May 12, 1989 *	
89-58	Waste Management '89	ANS, U of Arizona, EPRI	Feb 26 - Mar 2, 1989 6#	
89-59	Princ & Applic of Thermoluminescence Dosimetry	Victoreen, Inc	Sep 18 -20, 1989 3#	f
89-60	Spring Meeting	Cascade Chapter HPS	Apr 28, 1989 1#	!
8961	25th Annual Meeting	Nat'l Council on Radiation & Measurements	Apr 5 ~ 6, 1989 3#	f
89-62	Educational Day on Radon	American Medical Assn	Apr 1, 1989 0	
89~63	Radiation Protection Workshop	U S DOE	May 16, 1989 2#	!
8964	Workshop on Health Physics	U S DOE	Jan 31 - Feb 3, 1989 4#	:
89-65	1989 NCCHPS Spring Meeting	NCCHPS	May 5, 1989 1#	!
89-66	Workshop on Neutron Beam Design, Dev & Performance for Neutron Capture Therapy	MIT	Mar 30 - 31, 1989 3#	
89-67	Legislative Forum	VA Society of Radiologic Technologist	Apr 14, 1989 1#	
89~68	Physician's Seminar on Radiological Health	U of IL College of Medicine	May 12 - 13, 1989 2#	!
89-69	7th Annual Spring Conference	CalRad Forum	Apr 23, 1989 *	
89-70	35th Annual Conference on Bloassay	DOE, Savanah River	Oct 30-Nov 2, 1989 3#	
89-71 89-72	NRC Fuel Cycle Licensee Workshop Educational Day on Radon	NRC American Medical Assn	May 3-4, 1989 4# May 13, 1989 3#	

89-73	DOE Health Physics Training Course	ORAU	Jan	23-Mar 17, 1989	۱#
89-74	Advanced Gamma Spectroscopy	Quantum Technology	Jun	19-23, 1989	6#
89-75	Environmental Radiation Monitoring	US Army Belvoir Research	Jul	31-Aug 4, 1989	4#
89-76	Computer Based Occupational Rad Protect	US Army Belvoir Research	Jul	24-28, 1989	4#
89-77	HPS Summer School12th Annual	HPSSante Fe, NM	Jun	18-23, 1989	32#
89-78	Radiioprotectie en onderhoud kerncentrales	Belgische Vereniging	May	24-26, 1989	*
89-79	HPS Certification Prep Course	see 90-01-03			
89-80 Oct 2	Techniques in Nuclear Radiation Shield Analysi -6, 1989	S *	Univ	versity Texas, Engi	neer
89-81	7th Annual Spring Conference—CAL RAD Forum	CAL RAD Forum	Apr	24, 1989	2#
89-82	Management of Electromagnetic Energy Haz	Cook College	0ct	17-19, 1989	6#
89-83	Below Regulatory Concern Concept	SASC	Oct Oct Nov	3-5, 1989 23-25, 1989 13-15, 1989	*
89-84	Spring Technical Meeting	WNY Chapter, HPS	May	12, 1989	*
89-85	Second Annual Brosafety Conf for HP	UNC/Chapel Hill Occup Saf	Jul	10-12, 1989	*
89-86	Radiation protectin Managers Meeting	NRC Region III	May	23, 1989	*
89-87	Human Performance Evaluation System	Inst of Nuclear Power Org	Jul	17-19, 1989	*
89-88	CMS 1989 Modulex Users Group Meeting	Computerized Medical Systems	Apr	26-28, 1989	*
89-101	CEC-Writing Successfully for HP Journal	HPS Annual Meeting-CEC	June	e 26, 1989	2#
89-102	Hazardous Materials Considerations for the HP	HPS Annual Meeting-CEC	June	e 26, 1989	2#
89-103	Public Information Training Dealing w/ Media	HPS Annual Meeting-CEC	June	e 27, 1989	2#
89-104	Role of the HP in Conduct of Pub Ed on LLRW	HPS Annual Meeting-CEC	June	e 27, 1989	2#
89-105	Public Info Workshop Programs That Work	HPS Annual Meeting-CEC	June	28, 1989	2#
89-106	Update on Status of Proposed Trans Reg Rev	HPS Annual Meeting-CEC	June	e 28, 1989	2#
89-107	Role of the HP in Conduct of Pub Ed on LLRW	HPS Annual Meeting-CEC	June	e 29, 1989	2#
89-108	Writing Successfully for the HP Journal	HPS Annual Meeting-CEC	June	e 29, 1989	2#
89-109	Compliance with the New 10CFR20	Technical Management Svc	Jan	25-27, 1989	*
89-110	Radiation Detection & Measurement	Technical Management Svc	Feb	6-10, 1989	*
89-111	Contamination Control	Technical Management Svc	Mar	20-21, 1989	*
89-112	Hot Particle Control Training	Technical Management Svc	Mar	22-23, 1989	*
89-113	3 Internal Dose Assessment	Technical Management Svc	Apr	24-28, 1989	*
89-114	Radioactive Sample Analysis	Technical Management Svc	May	15-19, 1989	*
89-115	Applied Gamma Spectroscopy	Technical Management Svc	Sep	18-22, 1989	*
89-116	S Air Sampling	Technical Management Svc	0ct	19-20, 1989	*
89-117	1				
89-118	B ABHP Certification Exam Review Course	Skrable Enterprises, Inc	Mar	19-24, 1989	*
89-119	Technical Meeting WNY Chapter, HPS	WNY Chapter HPS	Jun	16, 1989	*
89-120	Handling of Rad Accidents by Emer Person	ORAU	Sep	26-29, 1989	*
89-12	1 1989 CRSO Conference	CRSO, Ft Collins, CO	Jul	18-19, 1989	*

89-122 Life Sciences Retreat	Lawrence Berkeley Lab	Sep. 19-20, 1989	*
89-123 Medical Use of Radioisotopes	USNRC Region IV	Sep. 7, 1989	*
89-124 ABHP Certification Exam Prep Course	OARU	AprJun., 1989	*
89-125 Implementation of the New 10CFR20	Technical Management Svc.	Oct. 16-18, 1989	*
89-126 MORT Accident/Incident Invest. Workshop	System Safety Dev. Ctr.	Jul. 24-Aug. 4, 1989	*
89-127 Environmental Laws & Regs. Comp. Course	Westinghouse Savanah River	Sep. 19-20, 1989 Oct. 16-17, 1989 Nov. 9-10, 1989	٠
89-128 ACURI 89 Annual Meeting	Penn State University	Nov. 2-3, 1989	*
89-129 Annual Technical Meeting	Central Rocky Mt Chapter HPS	Apr. 11, 1989	2#
89-130 Western Regional Symposium of HPS	Columbia Chapter, HPS	Mar. 16-17, 1989	3#

1990 COURSES APPROVED BY THE CONTINUING EDUCATION PANEL

NUMBER	TITLE	SPONSOR/LOCATION	DATE	CECs
90-01-01	Radiological Science II	Georgetown University	Jan - May, 1990	12#
90-01-02	Health Physics in Radiation Accidents	ORAU	Jan. 22-26, 1990	
90-01-03	ABHP Certification Exam Prep Course	B-W Chapter, HPS	Jan-June 1990	12#
90-09-01	Health Physics in Radiation Accidents	ORAU	Sep. 17-21, 1990	*
90-10-01	Tech. in Nuc. Radiation Shield Analysis	University Texas, Engineer.	Oct. 15-18, 1990	

^{*} Courses with an asterisk under the <u>number of credits</u> is currently under review. # Courses with a pound sign after the number of credits are credits issued under the new system.