American Board Of Health Physics

ANNUAL NEWSLETTER

November 1978

Dear Colleague:

The American Board of Health Physics is completing the 20th year of its existence and thanks to the response and support of active Certified Health Physicists, the program continues to be financially stable, active, and is becoming more prestigious with each year.

As indicated in previous annual letters, financial assistance through voluntary subscriptions was initiated as a temporary measure and was dropped in favor of the increased fee program. However, deep appreciation and gratitude are expressed to all those who have contributed. It was clear evidence of the fact that the majority of the Certified Health Physicists recognized the need to support such a program, which contributes to the profession as a whole, as well as to each individual.

The continued efforts of the American Board to restrict expenses to a bare minimum have been successful, as evidenced by the fact that the amount of money realized through the examination fees has nearly met the expenses of the program during the past year. However, during the last Board meeting, it was recognized that there are some increased expenses resulting from: the need to expand and modify the examination questions utilized in Part I; increased fee assessment from the Professional Examination Service; and, additionally, the initiation of a new specialty certification program for power reactor health physicists. In any event, it was felt by the Board that it would be necessary to raise the examination and certification plaque fees for new candidates, effective January 1, 1979, in order that the program be self-supporting. It should be emphasized, however, that employers of the Board and panel members continue to gratuitously support the work of the ABHP in the form of secretarial services, travel expenses, and their own time.

A summary of the highlights of the Board activities is attached for your information.

Thank you for your continued support of ABHP activities.

Sincerely yours,

Mike

Michael S. Terpilak
Secretary-Treasurer

SUMMARY OF ABHP 1978 BOARD MEETING ACTIONS

1. Recertification

The Board approved a Continuing Certification Program and appointed a Continuing Education Panel to initiate and implement the educational aspects of the program. Les Slaback is the present Chairperson and Jean St. Germain is Vice-Chairperson. Carlyle Roberts, as ABHP Vice-Chairperson, coordinates the activities of the Panel with other aspects of the Continuing Certification Program. Information and applications were mailed to all Certified Health Physicists in March 1978. A list of courses approved by the Continuing Education Panel, and a list of frequently asked questions concerning the Program was also mailed to all Certified Health Physicists in April 1978. At present there are 16 who have been recertified through December 1985, and 2 Health Physicists who have been granted Emeritus status.

2. Panel of Examiners

Certification examinations were conducted in July 1978, were graded, and the results approved at the Board meeting in Rockville, Maryland on September 26, 1978. Of the 46 candidates who took the entire exam, Parts I and II, 14 (30%) passed, 13 (28%) failed, and 13 (28%) will be required to take an oral examination, and 6 (13%) will be required to retake the part failed. This year's exam once again was designed to allow specialty groups to demonstrate competence in their area of expertise to a greater extent than in earlier years.

3. Liaison with the National Registry of Radiation Protection Technologists

The second National Registry of Radiation Protection Technologists examination was given as scheduled on November 5, 1977. There were 64 applicants accepted, of which 56 took the examination at 20 locations, and 41 (64%) were successful. The Board does not feel that this higher-than-expected percentage of successful candidates indicates that the exam was too easy. Rather, it is believed that the numerous training programs developed around the country in preparation for the exam were a significant factor.

The NRRPT Board meeting was held on January 15 and 16 at San Diego, at which time the results of the exam were approved by the Board. Those applicants who were accepted, but did not take the exam, are still eligible for the next one to be given on November 4, 1978.

4. Treasurer's Report

The Treasurer's Report indicated total assets of $7,300.84 as of September 10, 1978. It is anticipated that the increases in application fees effective January 1, 1979 for Parts I and II of the examination will provide sufficient funds to support the examination, including the new Specialty Program for Power Reactor Health Physicists.

5. Application Fees

The Board has approved the following increases in the application and certification plaque fees for new candidates. Effective January 1, 1979, the certification fees will be as follows:

Certification Step	Fee
Application to take Part I of the written examination	$ 75
Application to take Part II of written examination only	$ 75
Application to take Parts I and II of the written examination	$150
Charge for oral examination (if required)	$ 75
Charge for certification plaque	$ 25

6. Administrative Services

A meeting was held with R. Burk to arrange a service contract with the Office of the Executive Secretary of the Health Physics Society to assume the day-to-day administrative duties of the American Board of Health Physics. The Executive Secretary would provide the following day-to-day administrative services to the American Board of Health Physics:

1. Set up and administer the ABHP checking account and bookkeeping system.

2. Obtain and administer a bulk mailing permit for future mailings of the ABHP.

3. Provide future printing services for the ABHP.

4. Provide, administer and update a computerized list of certified health physicists for use by the ABHP.

5. Set up and maintain the ABHP records and files at some future date.

6. Service the ABHP mailing and information requests.

Mr. Burk submitted a cost estimate for the above services. The Board's proposal is to contract with him on an annual basis for approximately $2,500. This will provide essential facilities and does not commit us to the HPS Executive Secretary for an extended period.

7. Panel Appointments

A. Examination Panel

Panel member replacements were:

Retiring	Replacement
Neil A. Gaeta	Jerrel R. Everett
Walter F. Wegst	Francis J. Haughey
Richard R. Bowers	Robert M. Ryan

Panel officer appointments were:

Joel O. Lubenau - Chairperson
Roscoe M. Hall - Vice-Chairperson

B. Continuing Education Panel

Panel member replacements were:

Retiring	Replacement
Roger J. Cloutier	A. John Ahlquist
Jean St. Germain	Jean St. Germain

Panel officer appointments were:

Lester A. Slaback - Chairperson
Jean St. Germain - Vice-Chairperson

8. ABHP Member Replacements

Retiring	Replacement
Bryce L. Rich	William R. Hendee

In addition, the following ABHP officers were elected:

Michael S. Terpilak	-	Chairperson
Carlyle J. Roberts	-	Vice-Chairperson
David Myers	-	Secretary-Treasurer

At this time, the American Board of Health Physics would like to express its sincere thanks and gratitude to outgoing Board Member Bryce L. Rich for his inspiring leadership, guidance, dedication and support during his term of office. Thanks again, Bryce, for a job well done!

9. Power Reactor HP Certification Program

Enclosed in this newsletter package is recent information to all Certified Health Physicists from Chairperson Bryce Rich, American Board of Health Physics, summarizing the work of a subcommittee composed of Dave Myers and Dick Bowers concerning specialty certification as it relates to the power reactor health physics area.

The Board has now approved the establishment of a Power Reactor Health Physics Examination Panel with the following members:

Richard R. Bowers	-	Chairperson (NUS Corp.)
William D. Allen	-	Vice-Chairperson (Pennsylvania Power & Light Co.)

Examination Panel Members:

Edward Scalsky	-	Jersey Central Power & Light Co.
Harvey F. Story	-	Florida Power & Light Co.
Raymond G. Carroll	-	Arkansas Power & Light Co.
Norm L. Millis	-	Jersey Central Power & Light Co.
Peter J. Knapp	-	Nuclear Regulatory Commission
John R. Mann	-	Arizona Public Service Co.

The first certification examination for Power Reactor Health Physics is scheduled to be given on July 9, 1979, at the 24th Annual Meeting of the Health Physics Society, which will be held in Philadelphia, PA.

10. Part I - Eligibility Requirements

At its last meeting the ABHP approved the following change as it relates to Part I eligibility:

> Individuals who have successfully completed a Bachelor of Science program in Health Physics and who have at least one year of practical (professional level) experience can now qualify and be accepted to take Part I of the Certification Examination.

POWER REACTOR HEALTH PHYSICS CERTIFICATION PROGRAM

I. INTRODUCTION

After thorough deliberations over several years, the American Board of Health Physics has decided to offer specialty certification in power reactor health physics in addition to the presently offered comprehensive health physics certification.

A summary of the Board's deliberations was presented in the April 1978 Newsletter to certified health physicists. The responses from certified health physicists regarding the proposal to offer specialty certification in power reactor health physics were almost exclusively favorable. An updated summary of the Board's deliberations in this matter is presented in Section V.

The Board does not intend to offer specialty certification in other areas of health physics at present. The Board feels that specialty certification will only be considered when there is a genuine need in a given specialty area which cannot be adequately met by the present comprehensive health physics certification program. It is also the Board's intent not to take any action in the specialty certification area that would have an adverse effect on the present comprehensive health physics certification program.

It is the Board's position that comprehensive health physics certification signifies professional competence in the areas in which an individual is experienced; thus, in the power reactor health physics area and any possible future specialty areas, an individual with comprehensive health physics certification will automatically be eligible for the specialty certification if the individual has the requisite experience.

II. POWER REACTOR HEALTH PHYSICS CERTIFICATION PROCEDURES

A. Individuals Holding Comprehensive Health Physics Certification

Individuals holding comprehensive health physics certification are eligible for certification in power reactor health physics if:

(1) they have spent two of the last six years in a position in which they were responsible for at

least a major portion of the health physics program for an operating power plant, and

(2) they are presently spending at least 50% of their time in power reactor health physics.

In questionable cases, the Board may give the candidate an option of taking Part II of the specialty examination or taking an oral examination to evaluate the candidate's knowledge of power reactor health physics.

Applications for certification in power reactor health physics will be reviewed by the American Board of Health Physics and the Chairperson of the Power Reactor Health Physics Examination Panel. If the requisite experience requirements are met, certification in power reactor health physics will be issued.

Individuals who hold comprehensive health physics certification and do not have the requisite experience listed above must either:

(1) acquire the requisite experience, or

(2) take Part II of the Power Reactor Certification Examination.

B. Power Reactor Examination Panel

The initial members of the Power Reactor Examination Panel, all of whom hold comprehensive health physics certification, and meet the experience requirements of Section II-A, will receive certification in power reactor health physics.

C. Individuals Not Holding Comprehensive Certification

Individuals not holding comprehensive health physics certification must pass Parts I and II of the Power Reactor Certification Examination. To be eligible for the examination, an applicant must have a bachelor's degree in a physical science or in a biological science with a minor in a physical science. In exceptional cases, and at the discretion of the Board, an applicant may be permitted to substitute experience for the academic degree. In addition, an applicant must have at least six years of responsible professional experience in health physics. At least three years of this professional experience should be in applied radiation protection work with nuclear facilities dealing with radiological problems similar to those encountered in nuclear power stations, preferably in a nuclear power station. Advanced education may be substituted for up to two and one-half of the remaining three years of experience in accordance with normal Board requirements.

All requirements for early admission to Part I of the examination will be the same as the requirements for comprehensive health physics certification. That is, candidates with a master's degree in health physics are immediately eligible to take Part I, candidates with a bachelor's degree in health physics must have one year of applied experience, and all other candidates must have two years of applied experience.

III. POWER REACTOR CERTIFICATION EXAMINATION

A. Part I of the power reactor health physics examination will be identical to Part I of the comprehensive health physics certification examination, which consists of 150 multiple choice questions which cover fundamentals, radiation measurements, and operational health physics. The time allowed for this part of the examination is three hours.

Part I will be revised so it will contain only questions which are designed to test the applicant's knowledge of fundamental health physics principles, practices, and theory; and questions of general scope which a certified health physicist, regardless of specialty, should be expected to answer.

B. Part II of the examination will consist of two subparts:

(1) Ten short-answer questions. These may be fill-in-the-blank or multiple choice, or may require a one- or two-sentence answer. Candidates will be required to answer all the questions.

(2) Seven essay or problem type questions. The candidate will be required to answer any five.

Time allowed for this part of the examination is four hours.

C. Part II of the Power Reactor Health Physics Examination will cover material selected from the following areas:

Technical Administration
Professional Judgement
Design Review
Plant Systems
Procedures
Training
Regulations and Standards
Medical-Legal Aspects
Guides and Limits
Shielding
Radiation Measurement
ALARA
Radioactive Material Control
Radwaste Management
Emergency Planning
Instrument Selection, Operation and Calibration (includes survey, effluent monitors and counting room instruments)
Decontamination
Personnel Dosimetry

Contamination Control	Bioassay and Uptake Analysis
Air Sampling	Inplant Dose Assessment
Protective Clothing and Equipment	Environmental
Respiratory Protection	Off-site Dose Projection
Transportation	Current Topics

IV. GRADING CRITERIA

The grading criteria for the Power Reactor Health Physics Certification Examination will be identical to the grading criteria for the comprehensive examination.

A. Part I - Taken Alone

To pass Part I, the candidate must achieve a score of at least 67% on the total exam and on the Fundamentals Section.

B. Parts I and II - Taken Together

To pass the exam, the candidate must achieve a score of at least 67% on Part I, the Fundamentals Section of Part I, and Part II.

C. Failure Upgrading Criteria

Any grade less than 67% on either part will be considered to be a failure of that part. To provide candidates with an opportunity to raise a failing grade to a passing grade, the Board will do the following:

(1) Give candidates, who have scored at least 57% on both Part I and Part II and whose average grade (Parts I and II given equal weight) is at least 60, the option to take an oral examination or retake the part(s) failed. (If a candidate repeatedly fails one of the parts, the option may be removed and the candidate required to take an oral examination).

(2) The Board considers any grade less than 57% to be below the standards for oral upgrading.

D. Availability of Performance Information

Candidates may request their examination performance information to assist them in preparing for re-examination.

E. Oral Examinations

In the oral examination for power reactor health physics certification the candidate will appear before two examination panels of three members each. The first panel will examine the candidate in health physics fundamentals for 20 minutes, and the second panel will examine the candidate in power reactor health physics for 40 minutes. The specialty panel will be comprised of Board members or power reactor health physics examination panel members who are certified in power reactor health physics.

To pass the oral examination, the candidate will need at least two passing votes from the power reactor health physics examination panel and four passing votes from the combined panels.

F. Upgrading Power Reactor Health Physics Certification to Comprehensive Health Physics Certification

An individual certified in power reactor health physics can receive comprehensive health physics certification by successfully passing Part II of the comprehensive health physics certification examination.

V. BACKGROUND

As discussed in Section I, the American Board of Health Physics has decided to offer specialty certification in power reactor health physics. The Board made this decision for the following reasons:

A. Power reactor health physics represents a significant number of professionals. Presently, there are about 50 radiation protection managers (RPM) at power plants and about 125 additional health physics professionals within the utility industry. In addition, significant numbers of people in architect/engineering firms, consulting firms, and regulatory groups are involved full time in power reactor health physics.

B. Because the number of nuclear power plants is expected to increase significantly, the number of professionals needed in this area will also increase. Paul Ziemer, in a study of future personnel needs (Health Physics Society Newsletter, March 1976), predicts that 274 health physics professionals will be needed in the power reactor area by 1980 and 784 by 1990.

C. A limited number of individuals have the special qualifications required for these professional positions. As the need increases, it will become more important to insure that these critical positions are filled by persons with demonstrated capability in power reactor health physics. The specialty certification offers one mechanism for providing this assurance.

D. The importance of power reactors as a source of occupational radiation dose is evidenced by the trend of increasing person-rem per reactor. The need for competent people to minimize exposure from this source is apparent.

E. The public has shown less than complete confidence in the radiation safety of the nuclear power industry. It is important that persons dealing with the public be knowledgeable and be recognized professionals in order to gain the confidence of the public.

F. The Nuclear Regulatory Commission has indicated that it has under consideration a requirement for further documentation of capability for individuals who are designated to radiation protection manager (RPM) positions.

G. While the broad knowledge implied by a comprehensive health physics certification is desirable, it is not required for adequate functioning as a RPM in a nuclear power plant. The specialty certification will be of more obvious and direct relevance.

H. An individual with comprehensive health physics certification does not necessarily have the special qualifications and knowledge required by a nuclear power plant RPM without receiving further training and experience. The specialty certified HP will necessarily have these prerequisites.

I. Requiring that all RPMs hold comprehensive health physics certification and also have training and experience in nuclear power plant health physics is unrealistic in view of the current and expected near-term availability of such personnel.

The Board realizes that offering specialty certification presents some possible problems. In the past it decided against specialty certification for various reasons, some of which are listed as follows:

A. The specialty certification being considered was in a fringe area between health physics and other technical specialties and the Board felt that other credentialing groups were better suited to handle these situations.

B. There is great difficulty and effort in preparing, giving, and grading different examinations for various groups.

C. The Board is concerned about adversely affecting the value and meaning of the present comprehensive health physics certification program.

The above considerations not withstanding, the Board concluded that the potential benefits and contributions to the health physics profession and the health physics certification program would outweigh the problems which the offering of specialty certification in power reactor health physics might create.

By granting comprehensive health physics certification, the Board recognizes the professional with a broad, general knowledge in many areas of health physics. With specialty certification in power reactor health physics, the Board will recognize the professional who has detailed knowledge in a restricted area of health physics, namely an in-depth knowledge of power reactor health physics. However, any specialty certification will require knowledge of all health physics fundamentals. The Board hopes that if specialty certification becomes available in a given area, certified health physicists working in that area will seek specialty certification. Conversely, the Board hopes that health physicists with only a specialty certification will broaden their areas of knowledge, and seek comprehensive certification.