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## EPA Extends NESHAP Comment Period

The Environmental Protection Agency (EPA) has postponed the effective date of its new standards regarding emissions of hazardous air pollutants until mid-July. The EPA announced it is still examining certain portions of the regulations and will need the added time to digest public comments and complete deliberations on the issue.

Initially set to take effect on March 15, the rule specifies a maximum annual limit of 10 mrem (effective dose equivalent) for airborne radionuclide emissions emanating from facilities licensed by the Nuclear Regulatory Commission (NRC). The NRC already has its own airborne radionuclide emission standards for its licensees and opposes the EPA's efforts to assert authority in the area.

According to The Society of Nuclear Medicine (SNM) and The American College of Nuclear Physicians (ACNP), complications in reporting emissions data will arise since the NRC defines radioactive release on an activity per volume basis, while the EPA measures by exposure. "It's a question of apples and oranges," says one SNM/ACNP member. "NRC regulations are tailor-made to each type of nuclear facility, while the EPA proposes an impractical, broad brush method of compliance to standards."

A comment letter submitted to the EPA by SNM/ACNP complained that dual regulations would be "redundant ...and inconsistent" and would prompt "considerable effort and expense...to satisfy the different data sets and compilations..required by the two regulators." Furthermore, the SNM/ACNP comment asserted that the "NRC has been protecting the public....for over 30 years" and urges that "the EPA withdraw from regulating these [NRC-licensed] facilities in favor of the NRC."

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Corporation. "The diagnostics and treatments made possible by those iso-topes will be lost."

But William H. Young, DOE's assistant secretary for nuclear energy, argued that "there has not been a significant market for radioisotopes that can only be produced in a fast reactor environment." While Mr. Young acknowledged that FFTF can effectively produce certain isotopes, such as gadolinium-153, "We believe that existing Department reactors and accelerators can meet radioisotope market needs for the foreseeable future." Assistant Secretary Young further indicated that the efficient production of a wide variety of isotopes at FFTF would require additional capital expenditure of \$25 million. "Production of medical and industrial isotopes at FFTF cannot be economically justified."

Although the DOE asserted that the government can no longer afford to continue operating FFTF, advocates of

the site vouched that industry and medicine could not afford to continue without it. Citing data on radiopharmaceuticals from the Market Intelligence Research Company, Mr. Stern explained, "Medical uses of isotopes will increase by 10%-15% per year for the next several years, resulting in a foreseeable demand in 1995 equal to 20 times today's requirements." Ms. Atkin projects radiopharmaceutical corporate revenue to jump from a current level of \$250 million to more than \$3 billion in the late nineties. She says that there is a "potential to save thousands of lives and billions of dollars through earlier detection and treatment of disease."

While nuclear medicine research in Western Europe, Canada, and Japan enjoys a continuous, reliable flow of radioisotopes, similar research in the U.S. suffers from intermittent, irregular supplies, according to testimony. Witnesses complained that the U.S. is increasingly dependent on foreign sources for the availability of the most common radioisotopes used in nuclear medicine procedures, like technetium-99m, xenon-131, and iodine-123. "Unless we utilize FFTF, we will be totally dependent on foreign suppliers," warned Mr. Stern. Adding to the chorus of dire warnings, Ms. Atkin admonished, "With its aging infrastructure of reactors and accelerators [this nation] is quickly becoming unable to develop and commercialize the cures of tomorrow."

Ms. Atkin pointed out to the Subcommittee that the recent development of combining monoclonal antibodies with radioisotopes in diagnosing and effectively treating heart disease and brain disorders makes the problem of production even more urgent.

Dr. Korenko punctuated his testimony by asking, "Does it make sense to shut down FFTF and then ask Congress for one to three billion dollars to build another test reactor at the turn of the century?"

Palash R. Ghosh

# \_News Briefs :

#### Barry A. Siegel, MD Appointed Chairman of NRC's ACMUI

The Nuclear Regulatory Commission (NRC) recently appointed Barry Siegel, MD, as Chairman of its Advisory Committee for the Medical Uses of Isotopes (ACMUI). Dr. Siegel, professor of radiology and director of the nuclear medicine division at Washington University's Mallinckrodt Institute of Radiology, is the first non-governmental appointee to chair the Committee.

Dr. Siegel will serve as the principal interface between the NRC and ACMUI, which advises the Commission on the development of standards and criteria for regulating and licensing uses of radionuclides in medical care and research. As Chairman, Dr. Siegel will help establish the mechanics of the meetings and organize the agenda. Dr. Siegel told Newsline that he is looking forward to the prospect of chairing ACMUI and hopes that the Committee will provide an improved forum for the exchange of information between the medical community and the NRC.

Dr. John Glenn, chief of the NRC's

medical, academic, and commercial use safety branch, outlined some of the changes that the Commission hopes to see in ACMUI. He told *Newsline* that ACMUI will meet more frequently than in the past. Formerly, the Committee met about once every two years and only when there was a specific issue to discuss. Now, the Committee will meet at least twice a year and will formulate its own agenda.

The Commission selected Dr. Siegel because of his wide range of experience and extensive involvement in committee work. Dr. Siegel has formerly served as Chairman of the Food and Drug Administration's Radiopharmaceutical Drugs Advisory Committee and is vice-chairman of the American College of Radiology Commission on Nuclear Medicine and secretary of the American Board of Nuclear Medicine.

## SNM/ACNP Testifies on DOE's 1991 Nuclear Medicine Budget

On April 3, R. Edward Coleman, MD, professor of radiology at Duke University Medical Center, in Durham, North Carolina, appeared before the House Committee on Appropriations' Subcommittee on Energy and Water Development to offer testimony on the Department of Energy's (DOE) proposed fiscal year 1991 budget for nuclear medicine research. Speaking on behalf of The Society of Nuclear Medicine (SNM) and the American College of Nuclear Physicians (ACNP), Dr. Coleman stated that the Bush Administration's projected allocation of \$37,015,000 for the DOE's Medical Applications Program which includes nuclear medicine research — is inadequate.

"We do not believe this funding level is sufficient," he told the Subcommittee, recommending a 10% increase to \$41,409,500. "In order to continue the progress and momentum achieved in ...nuclear medicine...it is imperative that funding for research efforts be increased." Dr. Coleman, who is Chairman of the SNM's Scientific Affairs and Teaching Committee, told *Newsline*, "We felt that a ten percent increase was justified in the face of budget constraints that the Federal Government is facing."

The House is not expected to vote on the budget until the fall.

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latest advances in technology with an application to a population who could benefit greatly from the noninvasive technique." Dr. MacIntyre is staff nuclear physicist, department of nuclear medicine, Cleveland Clinic Foundation, Cleveland, Ohio.

Dr. Senneff, 28, graduated magna cum laude from Loras College, Dubuque, Iowa in 1982 and received her medical degree from the College of Medicine, University of Iowa, Iowa City, in 1986. She joined the Washington University School of Medicine as a research fellow in July 1989, having completed three years of residency at the University's Barnes Hospital. "My work," says Dr. Senneff, "involves a marriage between the disciplines of cardiology and nuclear medicine."

She maintains that she was attracted

to the field of cardiovascular medicine while working her way through school at the American Cancer Society. Among the numerous awards Dr. Senneff has previously received are the Janet M. Glasgow Memorial Achievement Citation in 1986, the University of Iowa's College of Medicine Research Fellowship in 1983 and 1985, and the American Cancer Society Research Scholarship in 1978.

# **News Briefs**

#### SNM Committee Develops Training Guides

To aid in the training of nuclear medicine physicians and technologists, the Education and Training Committee of The Society of Nuclear Medicine (SNM) has produced the following three booklets: Guidelines for Topics for Training of Radiology Residents & Cardiology Fellows in Nuclear Medicine, Guidelines for Quality Assurance Training, and Nuclear Medicine Checklist.

"We responded to a need from nuclear medicine practitioners to develop programs to help training directors," says Committee chairman William D. Kaplan, MD, chief of oncologic nuclear medicine at the Dana-Farber Cancer Institute, in Boston, Massachusetts, who, along with Warren H. Moore, MD, chief of nuclear medicine at St. Luke's Episcopal Hospital, in Houston, Texas, coordinated the preparation of the booklets.

Eva V. Dubovsky, MD, professor and director of nuclear medicine at the University of Alabama in Birmingham, a Committee member, who wrote *Guidelines for Quality Assurance Training*, says "This particular document will guide training directors of resident programs on how to teach quality assurance programs."

Compiled by respected educators from the fields of nuclear medicine, cardiology, and diagnostic radiology, *Guidelines for Topics for Training of Radiology Residents and Cardiology Fellows in Nuclear Medicine* was the result of a widespread perception among nuclear medicine professionals that there was a need to define the scope of training for radiology residents and cardiology fellows.

The editors compiled an outline of the most important imaging and diagnostic topics that radiology residents and cardiology fellows should learn in six-month nuclear medicine training programs. Ralph Gorten, MD, staff physician at the nuclear medicine department of Kelsey-Seybold Clinic, in Houston, Texas, who worked on the pamphlet, indicates that the requests coincided with an increase in the minimum requirement in radiation training from three months to six. Dr. Gorten emphasizes that "this document is only a suggested outline of things that residents of cardiology and radiation should learn during their nuclear medicine training period. It is not a body of knowledge, nor can it be used exclusively to prepare for any licensing or certification examination."

Nuclear Medicine Checklist, written by William Strauss, MD, director of the nuclear medicine division, Massachusetts General Hospital, and professor of radiology, Harvard University, Cambridge, consists of a list of nuclear medicine topics that a trainee would normally encounter and should become familiar with to "assure competence in both regulatory and clinical applications of radionuclide procedures." The checklist is divided into three areas: instrumentation, radiopharmacy, radiation safety; invitro and non-imaging invivo; and imaging procedures.

To obtain the training booklets, contact: Education and Training Committee, The Society of Nuclear Medicine, 136 Madison Avenue, New York, N.Y. 10016-6760. 212-889-0717.

#### Michael J. Welch, PhD, Receives ACS Award for Nuclear Chemistry

Michael J. Welch, PhD, professor of radiation, Mallinckrodt Institute of Radiology at the Washington Univer-

sity Medical Center, has received the American Chemical Society's (ACS) Award for Nuclear Chemistry, given in recognition of his work in the field of radiopharmaceutical chemistry. The Award was presented to Dr. Welch at a symposium held in his honor during the ACS National Meeting in April. All 30,000 members of ACS are eligible for the Award and the recipient is chosen by the ACS Awards Committee.

ACS founded the Award to encourage research and applications in nuclear chemistry and radiochemistry. According to Dr. Kenneth Krohn, professor of radiology and radiation oncology, adjunct professor of chemistry, University of Washington, in Seattle, Dr. Welch is the first nuclear chemist to win this award principally for his contributions to the specialty of nuclear medicine. Prior recipients focused on nuclear theory, reactions, and spectroscopy.

Dr. Welch, a past president of The Society of Nuclear Medicine, is well known as the originator of many research techniques that are widely used in biology and medicine. The primary focus of his work has been labeling chemical compounds with short-lived, accelerator-produced radionuclides. His innovative preparations of the labeled compounds oxygen-15, fluorine-18, and carbon-11 are commonly used in positron emission tomography (PET) studies today. He is also highly respected as a teacher of radiochemistry, having trained many of the people now practicing in this field.

A fellow member of The Society of Nuclear Medicine, Alfred P. Wolf, PhD, received this prestigious award in 1971. Dr. Wolf, who is director of the Cyclotron-PET Program at Brookhaven National Laboratory, won the Award for his work in carbon-11 hot atom chemistry.