FAUL S. SARBANES

COMMITTEES BANKING HOUSING AND URBAN AFFAIRS FOREIGN RELATIONS

JOINT ECONOMIC

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## United States Senate

WASHINGTON. D.C. 20510

October 15, 1990

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Mr. Dennis K. Rathbun Congressional Affairs Office of Government & Public Affairs Nuclear Regulatory Commission Washington, D.C. 20555

Dear Mr. Rathbun:

Enclosed is a copy of correspondence I received from Dr. P. David Wilson of the University of Maryland. The letter raises some serious concerns about low-level radicactive waste. I would greatly appreciate it if you would carefully review this matter and provide me with an appropriate response.

Your attention to this matter is greatly appreciated.

With best regards,

Sincerely, Paul Surbunes\_

Paul S. Sarbanes United States Senator

PSS/ccc Enclosure

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SCHOOL OF MEDICINE Department of Epidemiology and Preventive Medicine

August 29, 1990

The Honorable Paul Sarbanes Senator GH Fallon Federal Building Baltimore, MD 21201

Dear Senator Sarbanes:

The U.S. Nuclear Regulatory Commission (NRC) has implemented a policy which will allow low-level radioactive waste to be treated as ordinary trash. I have enclosed an August 22 article from the Baltimora Sun describing the policy. Note that the State of Maine has joined in a suit to overturn this policy.

Writing as a health professional I urgently request that you urge the President to block this policy, and that you sponsor legislation to overturn it and work actively to enlist other senators to support your effort.

Although a given isolated radiation exposure may be deemed negligible by a criterion established by a policy making body, there are several points to be considered:

- Ionizing radiation exposures have a cumulative biological effect. Therefore many "negligible" exposures can have a nonnegligible effect.
- 2. As scientific understanding of the biological effects of ionizing radiation has increased over the years, each new level of knowledge has shown the biological effects to be greater than previously believed. Within the last 10 to 15 years the American Dental Association has revised its policy regarding routine dental x-rays. As a result of recent re-analysis of the World War II atomic bomb follow-up data in Japan, a greater share of the effect is now assigned to X and gamma radiation, as opposed to neutrons. As a result the biological hazard of X and gamma radiation is now recognized to be approximately

CAMPUS FOR THE PROFESSIONS 655 West Baitimore Street Baitimore, Maryland 21201 The Honorable Paul Sarbanes August 29, 1990 Page Two

> three times that previously believed. There is no reason to believe that our present knowledge is now complete. We should expect that new future research will, as in the past, show ionizing radiation to be even more hazardous than presently understood.

- 3. The fact that we are all subject to natural "background" exposure from such sources as soil and rocks should never be taken as justification to increase that background level unnecessarily.
- 4. The criterion reportedly established by the NRC for defining "low-level" -- roughly equivalent to five chest x-rays, presumably annually -- is far in excess of limits set by other agencies, as pointed out in the attached article.
- 5. Because the biological effects in the form of increased incidence of cancer will in general not become evident for decades, by the time an increased cancer incidence could be shown to be associated with the implementation of the NRC policy millions and millions of people in several generations would already have been placed at increased risk.

Knowing of your concern for protecting the public health, I am optimistic that you will take the strongest action possible to block this dangerous NRC policy.

Sincerely,

P. David Wilson, Ph.D. Associate Professor

PDW/phb

Enclosure