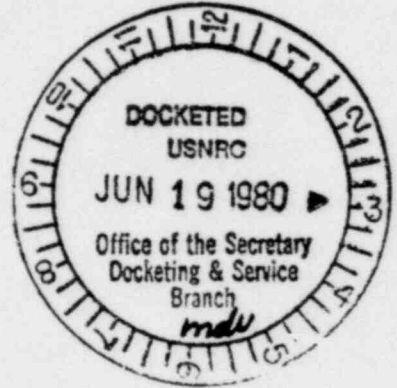


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DOCKET NUMBER PR-20 (47)  
PROPOSED RULE  
(45 FR 18023)



Secretary of the Commission  
U.S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Att: Docketing & Service Branch

Dear Sirs,

This letter is to comment on the proposed NRC changes in radiation protection standards.

In the considerations of present standards, recognition of differences in susceptibility to radiation is virtually absent. This is for practical purposes, a result of our inability to identify these people except by age. However, recent developments may lead to the possibility of better identification of this group.

It has been known for years that if one of identical twins is a victim of leukemia, there is about a 50% chance that the other one will develop the disease. Children with Down's syndrome have long been known to be susceptible to leukemia.

Recently, work on the disease, ataxia telangiectasia, has shown that these children with a known immune deficiency, are likely to develop leukemia or lymphoma before the age of 20 to 25. If they are given therapeutic doses of radiation they die from it. Tissue cultures of their cells show an unusual susceptibility to radiation the same as with victims of myeloid leukemia. Their relatives show a 5 fold increase in cancer.

Genetic defects have been identified in clear cell renal carcinomas, Wilm's tumor, retinoblastoma and recently chromosome markers have been identified in breast cancer. (Science, February 29, 1980, page 967).

Clinical medicine continually demonstrates that we are victims of diseases which we are genetically susceptible to. Hypertension, allergic disease, coronary heart disease, the major nervous and mental diseases, diabetes mellitus, neurologic diseases, cancer and others, all show a familial increase in incidence and mortality.

With this already heavy burden of genetically determined disease, how can we possibly decide how much more of it is to be allowed for purposes of generating electricity, most of which we do not need? When plutonium in the testicle, is known to concentrate between 2 and 2½ times in the area of spermatogonial cells, how can we possibly consider proceeding with an

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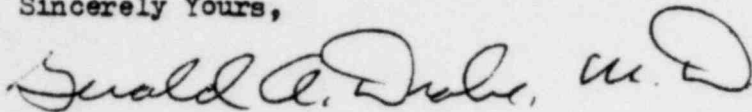
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economy based on producing this material by the hundreds of tons, shipping it around the world and expecting to keep it out of the biosphere?

Many years ago, Albert Schweitzer asked the pertinent question, in effect, "If any amount of a substance is known to be damaging to health, who has been given the right to set the acceptable population dose?"

It's past time that we call a halt to this technology until we have a better understanding of what it's long term health effects are likely to be.

Sincerely Yours,

A handwritten signature in cursive script that reads "Gerald A. Drake, M.D." The signature is written in dark ink and is positioned to the right of the typed name below it.

Gerald A. Drake, M. D.  
GAD/jr