

September 30, 1990

TO: U. S. NUCLEAR REGULATORY COMMISSION,
WASHINGTON, D. C. 20555

SUBJECT: Opposition to the Proposed BRC Ruling.

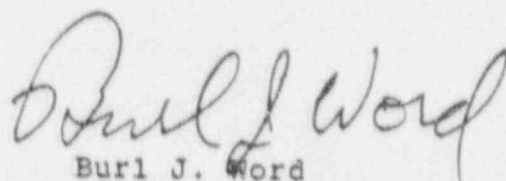
Gentlemen/Ladies:

The purpose of this letter is to express my opposition to the proposal to exempt low-level radioactive materials from control. I oppose with all my being the idea of dumping low-level radioactive materials in landfills, burning it, reusing it or recycling it along with municipal waste. IT MUST NOT BE SCATTERED. It must be retrievable.

It would seem far preferable to continue to control this material and to store it in the safest, most remote locations that can be identified.

I urge you to forego the proposed Below Regulatory Concern ruling because it would encourage dumping in rural areas, expose people without their knowing it, and scatter this material far and wide. America deserves better than this proposal which is questioned by authorities.

Very truly yours,



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BETWEEN THE LINES

An issue update from the *Blue Ridge Environmental Defense League*

Vol.2 No.3

September 1990



Recycled Paper

LOW-DOSE EXPOSURE TO RADIATION INVISIBLE, ODORLESS, TASTELESS, AND DEADLY

Find out just what people will submit to, and you have found out the exact amount of injustice and wrong which will be imposed upon them.

Frederick Douglas, August 4, 1857

"I hope this book will show many people how current practices will work very badly for human health, and I hope this book will empower younger generations to prevent the miseries of unnecessary cancers and unnecessary inheritable injuries."

-John W. Gofman, M.D., Ph.D.

The above quotation states with remarkable simplicity and economy the great value of a new study entitled *Radiation Induced from Low-Dose Exposure: An Independent Analysis*. The release of this study by Dr. Gofman in January of this year gives environmental groups opposing radioactive waste dumps a solid foundation upon which to base their fight.

The study began as an update on the risks of cancer caused by ionizing radiation and bases its findings on the data collected by government agencies from atom bomb survivors since World War II.

The conclusions of this study are summarized as follows:

1. There is no safe dose or dose-rate of ionizing radiation with respect to induction of human cancer. *This is proven beyond any reasonable doubt.*

What is Ionizing Radiation?

In general, an atom has the same number of electrons as protons, balancing the electrical charge. But, when radiation impinges on any material, electrons are knocked out of orbit, and ions are formed in the material.

-Radioactive Waste Campaign FACT SHEET

2. It would be *impossible* for low total doses of ionizing radiation, received slowly from routine occupational or environmental sources, to be less carcinogenic than the same total dose received rapidly.

3. There is no support for speculations about any net health *benefits* from exposure to low-dose ionizing radiation.

4. There is very strong support in the direct human evidence for recognizing that cancer-risk is probably more severe per dose-unit at low doses than at moderate and high doses.

5. The cancer-risk estimates for both rapid and slow rate low-dose exposures, provided in

very encouraging because they say there will be no cancer risk at very low dose, and they also say that at high dose there will be no late effects of marrow damage. All that is rather comforting.

You also have the great deal of work that's been done with regard to prenatal irradiation and childhood cancers, and they've come out almost consistently in favor of there being an association. This is to say that a single X-ray taken shortly before birth is sufficient to increase the risk of an early cancer death. And following on to that, there's even been a study that has incorporated measuring the effect of fetal exposure to natural background radiation, and has said this must be a cause of the so-called naturally occurring cancers.

BREDL: Your work on childhood cancers is, of course, what alerted the world to these things. These two studies would seem to point in opposite directions. You said there was a...

Dr. Stewart: In between these two studies stands a lot of work on the risks to workers in the nuclear industry. That was studied by Dr. Mancuso and his associates, of which I was one, and we found evidence of a cancer risk at very low doses. Thus we were in favor of saying that the pre-natal X-ray story is more to be trusted than the other. There have since been what I call in-house studies by the U.S. Department of Energy revising that study and telling us that there really isn't any risk.

So it comes back to, could anything have gone wrong with the A-bomb survivor study? And recent work suggests, yes, there was a mistake there. The mistake was as follows: When you picked up a population of survivors five years after the event and you concluded it was a normal population because it

had a normal non-cancer death rate, you actually were making a very grave mistake. The death rate was normal, but the reason it was normal was because of two late effects of radiation which have more-or-less cancelled one another out.

BREDL: You're saying that the appearance of normal was a statistical accident? Would you elaborate?

Dr. Stewart: There had been tremendous selection due to the appallingly high death rate in the early days following the bombing which had had the usual survival of the fittest effect. Plastered onto that you have two effects of the epidemic due to acute bone marrow depression. Both of these effects had affected the immune system. One had pushed up the population's level of immunological competence and the other pushed it down and it more-or-less works out as a balance. We were able to prove from recent releases of data that if you look closely at it you can find evidence of these two things. So the true story with regard to A-bomb survivors is not that there is no late effect of the A-bomb except radiation, but that there are still three effects; selection, marrow damage, and cancer. That is the reason you get this false impression of no risk at low doses.

BREDL: What are the implications of all this for the average citizen?

Dr. Stewart: At the end of the line, for every extra cancer death you are really postulating there will be genetic damage and therefore damage for the future generations of mankind. ◊

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**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

90 JUL 30 AIO 12
**Office of Governmental and Public Affairs
Washington, D.C. 20555**

No. 90-104
Tel. 301/492-0240

FOR IMMEDIATE RELEASE
(Friday, July 20, 1990)

**NRC TO HOLD FIVE PUBLIC MEETINGS
ON BELOW REGULATORY CONCERN POLICY**

The Nuclear Regulatory Commission will hold five public meetings in August and September to discuss its recently published Below Regulatory Concern (BRC) policy statement.

The meetings will be in Chicago on August 28; King of Prussia, Penn., on September 18; Atlanta, Ga., on September 20; Arlington, Tex., on September 25 and Oakland, Calif., on September 27.

As announced on June 27, 1990, and published in the Federal Register on July 3, 1990, the Commission will use the BRC policy statement to guide its future decisions on when radiation levels are so low that they do not warrant regulatory control. The policy statement itself does not constitute a decision to exempt any specific consumer product, waste or other item containing radioactive materials from regulatory control. Rather it provides a uniform and consistent health and safety framework for considering whether to grant such exemptions.

The public meetings will provide an opportunity for NRC staff members to discuss the policy with attendees, receive comments from the public and answer questions about the policy.

Interested persons are invited to attend. Requests to make oral statements must be submitted in writing or by telephone at least 7 days before the meeting to the appropriate NRC contact person listed below. Oral statements will be limited to 5 minutes and may be limited further if a large number of requests are received.

Persons may also submit written statements at the meeting or may supplement oral statements by written statements. All written statements must be clear and reproducible and identify the name, any affiliation, and address of the author.

NRC contact persons for the meetings are:

Region I - Ms. Marie T. Miller, U.S. Nuclear Regulatory Commission, 475 Allendale Road, King of Prussia, Penn. 19406, telephone: 215/337-5000.

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Region II - Mr. J. Philip Stohr, U.S. Nuclear Regulatory Commission, 101 Marietta Street, Suite 2900, Atlanta, Ga. 30323, telephone: 404/331-4503.

Region III - Mr. Charles E. Norelius, U.S. Nuclear Regulatory Commission, 799 Roosevelt Road, Glen Ellyn, Ill. 60137, telephone: 708/790-5500.

Region IV - Mr. A. Bill Beach, U.S. Nuclear Regulatory Commission, 611 Ryan Plaza Drive, Suite 1000, Arlington, Tex. 76011, telephone: 817/860-8100.

Region V - Mr. Ross A. Scarano, U.S. Nuclear Regulatory Commission, 1450 Maria Lane, Suite 210, Walnut Creek, Calif. 94596, telephone: 415/943-3700.

Tentative agenda for each meeting is:

- ° NRC staff discussion on the BRC policy
- ° Prepared oral statements from attendees
- ° Questions and answers

The meetings will be open to the public, with seating on a first-come/first-served basis. For planning purposes, persons who plan to attend a meeting are requested to contact the appropriate NRC contact listed above.

The meetings will be transcribed. The transcripts and any other documents associated with the meetings will be available for inspection, and copying for a fee, at the NRC Public Document Room, 2120 L Street, NW, Washington, DC 20555. The NRC also plans to publish a summary report of the meetings.

Exact times and locations for the meeting are:

King of Prussia, Pennsylvania (near Philadelphia), September 18, 1990, 9:00 a.m., Sheraton Valley Forge Convention Center, Philadelphia Area Room, North Gulph Road and First Avenue, King of Prussia, Pennsylvania.

Atlanta, Georgia, September 20, 1990, 1:00 p.m., Westin Peachtree Plaza Hotel, Peachtree and International Boulevards, Atlanta, Georgia.

Chicago, Illinois, August 28, 1990, 1:00 p.m., Holiday Inn - O'Hare Airport, 5440 North River Road, Rosemont, Illinois.

Arlington, Texas (near Dallas - Ft. Worth), September 25, 1990, 1:00 p.m., Arlington Convention Center, 1200 Stadium Drive East, Arlington, Texas.

Oakland, California, September 27, 1990, 9:00 a.m., Holiday Inn - Oakland Airport, 500 Hegenberger Road, Oakland, California.