

To:—

Docketing and Service Branch
Secretary of the US NRC
US Nuclear Regulatory Commission
Washington, DC 20555

From:—

Louis G. WILLIAMS, Ph. D.,
1246 Northwood Lake
Northport, AL 35476
December 14, 1985
(205) 339-1535

Subject: NUREG-0956 estimating Source Term

In February 1971 before the American Trial Lawyers Association in Las Vegas I delivered a speech before these lawyers dealing with evidence for the trial lawyer in water pollution cases. This was done at the request of Professor William Schwartz of the American Trial Lawyers Association. Also, in 1972 I spoke to the students in an environmental law class of the Cumberland School of Law of Samford University, Birmingham, AL 35209, concerning the communications gap between scientists and lawyers, both concerned with protecting the environment.

In 1972 I debated Joseph M. Farley, a trained engineer, and now president of the Alabama Power Company, concerning the pros and cons of generating electricity by use of atomic energy. While no decision was made from this debate, I believe my position was persuasive, before the faculty and the law students. During this debate I predicted that containment of radionuclides and especially neutrons would not work in the water cooling system of Westinghouse pressurized water cooling system. I had previously also said this in February before the American Trial Lawyers Convention in Las Vegas, mentioned above. These predictions were also made before many speeches that I made including one before Earth Day at Auburn University after the plant was under construction (Farley Plant).

Please read the enclosed photocopy of an ad published in many Alabama Newspapers in 1980 and again in 1981 concerning TV radiation exposure, which says that "Your color TV set exposes you to about 1000 times more radiation than a nuclear power plant."

Then read my letter to the Editor of the Birmingham Post-Herald (Morning Mail) of April 25, 1981. (Photocopy enclosed) The back side of this ad in the Post-Herald is a large ad paid for by the Alabama Power Co. which I believe to be libelous, principally because I "NEVER" said anything about promoting a MELT DOWN to bring out my viewpoint to the ignorant public. I did say that a meltdown would bring a lot of deserving attention to the communication problem.

However, what I have been saying before lawyers, law students, and the debate with Mr. Joseph Farley happened when neutron activation or neutron bombardment in the heat exchanger caused the metals to become brittle or fragile, allowing neutrons to pass all of the way through the heat exchanger into the generator. The electric generator became very irradiated or neutron activated so that it was very radioactive and melted together so that it was unusable and unsafe for the human environment. The whole large generator was buried after being barged down the Chattahoochee River and up the Tombigbee River to the "safe" lime-clay chalk of the Black Belt, like the geology of the Chemical Waste dumpsite at Emelle, Alabama. Had Mr. Farley understood my debate about neutron activation he might have corrected the metals of the cooling system so that neutrons would not have caused this meltdown. What's more "no one" except me predicted the concurrent iodine-131 problem. However, the Alabama Power Representative still claims it was caused by fallout from atomic testing in the air from Nevada!!

My impact contribution to the two reactors at the Joseph M. Farley Nuclear Plant, units 1 and 2 of the Alabama Power Co. US AEC Docket Nos 50-348 and 50-364 was not used in 1972.

Enclosure - "Did you know?"

Sincerely,

Louis G. Williams

Louis G. WILLIAMS

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PDR NUREG
0956 C PDR

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PS-- Comment on NUREG-0956: my iodine study from grass, calves thyroids to measure 131-iodine and some milk samples after this meltdown verifies the inadequate nature of NRC's motivation to reassess source term estimates for nuclear reactors!!

M. Silberberg, 113055
D. Ross, 113055
Wm Olmstead, 9604 MNBB

April 25, 1981
Irresponsible ad

The advertisement of the Alabama Power Company on page A2 of the

April 21 Birmingham Post-Herald, one of the "Did-you-know" series, is very irresponsible to its customers. This ad asks us to believe that "nuclear power plants rank at the bottom of any list when it comes to sources of radiation exposure," and that a color TV set exposes you to about 1,000 times more radiation than a nuclear power plant."

Of course, this statement might be true for the "average" person living 50 miles or more from a nuclear power plant when it is operating according to norms that have been established by the Nuclear Regulatory Commission.

Does the public realize that the picture one "sees" from a TV is not ionizing radiation, but it is radiation. The TV programs could be the cause of some kinds of mental sickness or mental pollution, but the radiation from color is not contaminating.

Color radiation is instantly dissipated, while the substances of the nuclear fuel cycle and their produced nuclear wastes build up huge amounts of invisible ionizing radiation for generations to come.

Some of these radionuclides will be around for millions of years, while constantly producing alpha, beta and gamma ionizing radiation. These three kinds of radiation are not produced from a TV set, although a TV set does produce relatively negligible ionization of human tissues from X-rays. The use of nuclear medicine and X-rays are relatively safe, cheap and effective, where the cost-to-benefit ratio is positive. For power generation, however, the ratio is negative.

Radionuclides do get into our bodies by our eating, drinking and inhaling them. Ionization from these radioactive substances does change our body chemistry to initiate cancers, birth defects and unwanted permanent hereditary changes. Also, in our diets radionuclides do shorten our lives and predispose us to other kinds of sickness.

(Please see the response to this above letter by the Alabama Power Company on the reverse side).

DID YOU KNOW?

Your color TV set exposes you to about 1,000 times more radiation than a nuclear power plant.

A color TV set exposes you to about 1 millirem (a unit of radiation measurement) per year. One coast-to-coast jet flight, about 5 millirems. One chest X-Ray, about 50 millirems. And a nuclear power plant, only about 0.001 millirem per year. Small wonder then, that nuclear power plants rank at the bottom of any list when it comes to sources of radiation exposure. And at the top when it comes to clean, safe, efficient energy. That's a fact that you should be exposed to.

Published in the Birmingham Post-Herald; on August 26, 1980 and again on April 21, 1981.

Alabama Power



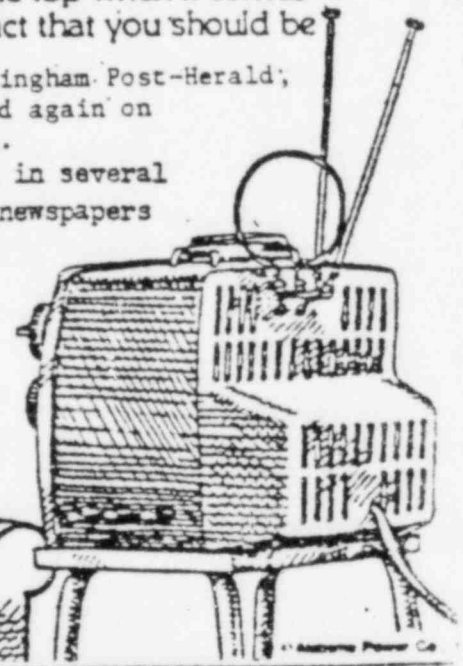
an American Electric System

Also printed in several other State newspapers

The comparison by the ad of the Alabama Power Company which uses one millirem of radiation per person per year from TV exposure to 50 millirems of a chest X-ray or to 5 millirems of a jet flight, is like comparing butterflies to elephants. Very little of the electromagnetic ionizing radiation from TV's, X-rays or during a jet flight is actually captured as it passes through the human body. On the other hand, alpha and beta particles from radionuclides do impart nearly all of their huge amounts of ionization within the body when they are inhaled or swallowed.

Plutonium, created in nuclear power plant reactors, does not exist in nature. It has a half life of 4,300 years, making it a problem for millions of years. It is an alpha emitter (internal emitter) which means that all of its large amount of ionization is taken up by a relatively few cells. A tiny speck of plutonium inhaled into the lung will start a cancer. A little larger amount will cause radiation sickness and death.

If the Alabama Power Company must use its funds to advertise how safe and efficient nuclear energy is, its promoters should read reports of financial investment specialists in the Wall Street Journal, and the Harvard Business School. These reports do not recommend the use of nuclear power plants to generate electricity for economic reasons.



The Alabama Power Company would help its customers by promoting more use of inexpensive technology, which allows coal to be burned safely for the immediate future, and more and more use of solar energy. The breakthrough for abundant, cheap and clean energy will come from fusion of hydrogen. Let's put on a crash program for fusion, not fission.

It is now time for the nuclear power proponents to stop talking about misleading radiation and to begin talking about radioactive substances that give off undesirable ionization within organisms including mankind. The bioaccumulation of food web concentration is our chief source of worry about current nuclear energy.

Dr. Louis G. Williams
1246 Northwood Lake
Northport

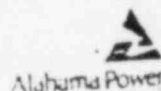
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From: — Louis G. WILLIAMS
1246 Northwood Lake
Northport, AL 35476

This is the Letter You Never Had a Chance to Read

This is sheet two of two. Please read the otherside first. (Louis G. WILLIAMS).

Stephen E. Bradley
Vice President
Public Information



May 4, 1981

Published in the Birmingham Post-Herald on
June-23, 1981. (LGW).

Editor
The Birmingham Post-Herald
2200 Fourth Avenue, North
Birmingham, AL 35203

Dear Editor:

In an April 25th letter to the editor, Dr. Louis Williams of Northport questioned the information contained in a recent "Did You Know?" Alabama Power ad concerning nuclear power.

The information in the ad explaining that one receives 1,000 times more radiation from a color tv set than from a nuclear power plant is correct. Alabama Power does not commit to print incorrect information.

When considering comments from Dr. Williams, it should be pointed out that he stated in an October 1979 Birmingham News interview, "... we need a meltdown. I don't know where to have it ... but we need one someplace"

The motives, and credibility, of anyone advocating a serious nuclear accident simply to gain a forum to voice alleged shortcomings of nuclear power must be questioned.

Sincerely,

Stephen E. Bradley

SEB:ps

untrue
fsh

While recently printing two very lengthy letters (April 25th and May 22nd) from an avowed anti-nuclear activist, the Post-Herald refused to print our very short response to those letters. We think that is unfair. We were denied our right to respond, and you, as readers, were denied your right to read the facts. We were forced to buy this ad to let you know that the person who wrote those two letters also advocates a serious nuclear accident simply to dramatize his views on nuclear power.

But what bothered us more than anything was the denial of our right to express our view from a newspaper that seldom misses a chance to defend its own freedom of speech

and trumpet the virtues of the First Amendment. That denial was especially disturbing because we were only trying to respond to charges about Alabama Power that had already been printed and widely circulated.

We hope that, in the future, we will have the same opportunity as other readers to see our letters to the editor printed without having to resort to paid advertising to express a point of view.

Alabama Power
the southern electric system