

'Tooth fairy' project opposes A-plant based on pseudo-research

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Our area is again under siege by an interest group lobbying hard for restricting or shutting area nuclear plants based upon highly questionable health studies. These are the "tooth-fairy" folks masquerading behind the legitimate-sounding organization called the Radiation and Public Health Project. They are on a crusade to close nuclear plants, which they claim are responsible for an epidemic of cancer in children. They have an automatically sympathetic audience because they invoke the sad reality of pediatric cancer. However, their conclusions result from biased interpretations of pseudo-research.

The two or three people who are the Radiation and Public Health Project have used movie stars, super models and self-serving interest groups to encourage parents to provide their children's baby teeth for their work. The teeth are analyzed for strontium-90, a radioactive element produced in nuclear reactors, but the overwhelming majority of which entered the environment from open-air weapons testing in years past. Of course, their expectations are automatically fulfilled by their claim that teeth from children in areas near nuclear power plants contain higher amounts of strontium-90 than "would have been expected" in the same years as the nuclear plants were in operation. Although more cautious about their conclusions these days, in the past they have stated that these peak levels coincided with increases in cancers among children. Voila! Strontium-90 from power plants increases cancer in children.

One does not have to be a specialist in radiation or epidemiology to see the many logical inconsistencies in the work. The so-called "peaks" of radioactivity are minor statistical variations, as are their cancer statistics. Sad as it is that any child succumb to cancer, there is no epidemic of pediatric cancer.

The Radiation and Public Health Project also shows alleged peaks in the strontium-90 content of teeth coinciding closely in time with peaks in cancer death rates. Yet we learn in the first year of medical school that cancers induced by radiation take years to develop, sometimes up to 25 years. Increased cancer rates cannot occur at the same time as exposure to a radiation source.

The National Cancer Institute study published in the Journal of the American Medical Association in 1991, using validated statistical methods, reached definitive conclusions about nuclear power and health. Examining 90,000 cancer deaths from 1950 to 1984 near nuclear power plants, it found no evidence of increased risk of death from a wide range of cancers. Dr. John Boice, who was chief of the Cancer Institute's Radiation Epidemiology Branch at the time of the study, said, "From the data at hand, there was no convincing evidence of any increased risk of death from any of the cancers we surveyed due to living near nuclear facilities."

The same answer has been found by numerous other studies of the health of populations living near commercial nuclear plants, including the Pennsylvania Department of Health study of the population around Three Mile Island following the 1979 accident.

Incredibly, the Tooth Fairy Project ignores the natural pathways of strontium dissemination. Strontium, a calcium analog, can accumulate in bones and teeth only if it is ingested. It can reach the food chain only by being in agricultural soil, and especially when concentrated in milk produced by cows eating contaminated feed. Unless the populations around nuclear plants are subsistence farmers eating and drinking their own produce, even the infinitesimal

amount of environmental strontium emitted by nuclear plants could not reach them. If their food comes from elsewhere, so must the strontium.

We are all touched by any child's death, regardless of the circumstances. But those children are not served by twisting the language of science to meet political ends. The diversion of resources into false research compromises the efforts of legitimate science to find the root causes of cancer and the methods to cure and prevent it.

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