

by Theodora Kerry March 2001

Where Fluoride Comes From

Fluoride is a generic term to indicate a wide variety of substances containing the element fluorine. Slightly less toxic than arsenic, but more toxic than lead, fluorine is the most negatively charged and most chemically active of all elements on earth, which means it loves to combine and recombine with other elements in its path, ever looking for the strongest bond, and reeking havoc all along the way by creating even more toxic combinations.

Contrary to fluoridationists' assurances, fluoride is anything but benign, and that's why industry loves it. How do the industrial, agricultural, pharmaceutical, and military interests love fluoride? Let us count the ways. Used to etch glass, ceramics and computer chips; refine petroleum products, make ceramic materials more porous, inhibit fermentation in breweries and wineries, polish aluminum, refine metals, and separate uranium isotopes in the production of nuclear warheads, fluoride is also a key ingredient in the most widely used insecticides and pesticides (rat poison), and is used in most general anesthetics, in many nerve gases (Sarin) and in many psychotropic drugs (Prozac). But what sounds like a dream lover for industry, is a toxic nightmare for the rest of us, as industry continually searches for new places to dispose of its fluoride waste

Up until the 1920's and `30's, industry didn't have to look far, simply discharging wastes directly into the air and waterways, causing great harm to anyone and anything down- stream or downwind, including fish, animals, and farms. By the 1930's, lawsuits were mounting as more and more victims understood that their problems were caused by fluoride poisoning. Not surprisingly, industry's response was focused on changing the public's perception of fluoride rather than on stopping their dangerous practices. At this time, the public understood fluoride to be syn-onymous with rat poison, not healthy teeth, but this was all about to change!

The Solution to Pollution is Dilution

Funded by top fluoride-emitters such as the Aluminum Company of America (Alcoa), new research emerged which claimed to show a fluoride's supposed benefits. Since many of the fluoride wastes were being produced by the-Manhattan Project, tire U.S. Military's program to create the first atomic bomb, various federal agencies became full parties to this national effort to fool Americans into bang fools for fluoride. - Formerly classified documents that scientists and officials from be U.S. War Department, the. L FDA, the Agriculture and Justice Departments, among others, met secretly with industry lawyers to plan hoax to legally defeat those already suing for fluoride injuries. Their, plan would ultimately include fluoridation,- the dumping of these toxic wastes in controlled doses into our drinking water, and this effort was openly led by the U.S. Public Health Service which, at the time, was under the jurisdiction of Andrew Mellon, the- founder of Alcoa, and, after 1947, Oscar Ewing, a long-time Alcoa lawyer. With the help of Edward Bernays, the "father of public relations", who had made smoking respectable for women, Americans would soon be convinced that fluoride was safe for one and all.

The first city in America to be fluoridated was Newburgh, New York in 1945, chosen by a committee



A fertilizer plant where fluorosilicic acid is a most toxic waste by-product produced from the manufacture of phosphate fertilizers.

led by members of the Manhattan Project although their military affiliations were kept secret. Newburgh was also near the University of Rochester which housed a clandestine division of the Manhattan Project -to study the health effects of the special materials, including fluoride, that were used to make the atomic bomb: (This was the same facility where unsuspecting patients were injected with radioactive plutonium.) For the next ten years, blood and tissue samples of Newburgh residents were sent to the University of Rochester, supposedly to study the effect on children's teeth, but a classified 198 . report told the real purpose "to supply evidence -useful in the litigation arising from an alleged loss of a fruit crop, . . . since excessive blood

fluoride levels were reported in human residents of the same me. Since the intention of these studies was to defend fluoride-emitters from damage claims, the military scientists conducting them had every reason to find fluoride beneficial to the teeth, and harmless to the rest of the body, at .higher rather than lower doses. Unfortunately, than Chas become the foundation of what the government, via dentists and public health officials, tells us about fluoridation.

Fluoride - The Protected Pollutant

Since the Public Health Service (PHS) endorsed fluoridation in 1950, over 2/3 of our nation's reservoirs have been fluoridated with sodium fluoride and hydrofluosilicic acid, the waste by-products of the aluminum and phosphate fertilizer industries. Substances that would cost these industries millions to store at Class 1 Hazardous Waste Sites, are instead sold to communities at great profit and dumped into our drinking water. Since there is no regulatory oversight or standards for these products, they often contain other wastes, including radionuclides, cadmium, lead, arsenic, uranium, and mercury. Even worse, there have never been any controlled clinical studies on how these particular fluoridating agents react in water systems, let alone, in our bodies, despite the fact that fluoride is known for its ability to leach copper and lead from water pipes, as well as combine with all manner of chemicals, including those used in the water purification process. Recent research involving children in fluoridated areas has shown elevated levels of lead in their blood, while other studies have shown that cooking with fluoridated water in aluminum pots releases much higher amounts of aluminum into the food or drink. Since lead-poisoning is associated with higher rates. of learning disabilities, hyperactivity, and anti-social behavior, and excess aluminum intake is associated with Alzheimer's Disease, one would think that the Public Health Service would welcome these studies, but they don't.

And neither do the administrators at the Environmental Protection Agency, the ones who set the standards for drinking water. While fluoride is equal in toxicity to both lead and arsenic, the EPA s Maximum Contaminant Level (MCL) for fluoride is 4000 parts per billion (ppb) compared to 15 ppb for lead and 10 ppb for arsenic. It gets worse. Since its creation in 1972, the EPA has consistently ignored the mounting evidence against fluoridation, even raising the MCL from 2000 ppb to 4000 ppb in 1985 after a PHS panel of experts recommended much lower doses because of their concerns about fluoride's effects on the bones of children, on the heart, on dental fluorosis, and for the overall lack of scientific data. When a National Toxicology Program study (ordered by Congress in 1977) clearly linking cancer to fluoridation was released in 1989, the PHS and the EPA quickly formed a new commission to review the findings. In the final report, the evidence of carcinogenicity was systematically down-graded, leading Dr. William Marcus, then Senior Science Advisor and Toxicologist

in the Office of Drinking Water, to blow the whistle and release the true findings. His reward for doing the job he was paid for? The EPA fired him! Although Dr. Marcus eventually won his suit against the EPA, and was joined by the rest of his co-workers, the chemists, toxicologists, and science professionals at the EPA who came out against fluoridation in 1997, the EPA management still continues to drag its feet in all matters related to the safety of fluoridation.

Fluoridation Pollutes Our Environment

Meanwhile, 99°k of all fluoridated tap water winds up in our water ecosystem ensur-ing that our rivers, lakes, and oceans will also be contaminated with excess fluoride, thus affecting all life within those systems. There have already been several studies showing that fluo-ride levels above 200 ppb have lethal and other adverse effects on fish, and are a contributing factor in the decrease of salmon populations in the Pacific Northwest. And, what about food crops irrigated with fluoridated water? Some plants can synthesize organic fluoride com-pounds like fluoroacetates which are among the most poisonous substances known. We should also be concerned about the spreading of sew-age sludge on agricultural and forested lands especially if it comes from fluoridated areas, since it will contain even higher concentrations of fluoride which will then be released into the soil.

Saying No to Fluoridation

Clearly, fluoridation is driven by the needs of industry, not by concerns for healthy teeth, let alone a healthy environment. No one sums it up better than Councilman Keith Beier of Escondido when he made the following statement in 1999 as his fellow council members debated the issue: "Our water department calculates that we would be buying more than 33 tons/year of a substance that can't be given to us for free because it is classified as a toxic hazardous waste; yet, we are supposed to accept that, if we pay \$0.35/gallon and they slap a new label on the container, this same toxic waste can be shipped to us untreated, directly from the scrubber systems of the phosphate fertilizer industry that they use to keep fluorine from becoming airborne and killing everything in sight, and that on the truck-ride here it will magically be converted to a safe and desirable nutrient. The kicker to this scheme is that the amount intended for the targeted children is only 16 pounds of that 33 tons." Shortly thereafter, Escondido joined the long list of cities that have rejected fluoridation. We hope you will use this information to make that list even longer!

[PART 2 of the article - Questioning Fluoridation]

For more information on the history of fluoridation and its effects on our environment, read the Earth Island Journal's "Fluorides and the Environment", and their Winter `97-'98 edition, or visit their website at www.earthisland.org.