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FLUORIDE REPORT CARD FOR HHS AND EPA
Submitted April 19, 2011, Revised May 19, 2011

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Dear Ms. Sebelius and Ms. Jackson,

I am writing generally in connection with HHS and EPA requests for comment regarding fluoridation.

To make it easier to follow links, read a web version of this letter at: http://fluoride-class-action.com/hhs. Click on this link: http://fluoride-class-action.com/hhs/report-card-for-hhs.

There is much to say about lead and arsenic in silicofluoride fluoridation materials, and so a supplementary letter is presented, which is entitled Comments to HHS and EPA Regarding Lead, Arsenic, and Water Fluoridation. To read it click on this link: http://fluoride-class-action.com/hhs/comments-re-lead.

The HHS request for comment regarding its recommendation of fluoridation at a new flat .7 ppm level, as published on the following web pages:

HHS request for comments in the Federal Register
HHS Press Release page
Pre-publication preliminary version of the HHS recommendations.

I am also addressing the EPA request for comment on its proposed recommendation of a reference dose of .08 mg per kg of body weight per day. In support of this recommendation the EPA offers the fluoride related documents published on the following web pages:

Press Release
Fact sheet (PDF)

> Fluoride: Dose-Response Analysis For Non-cancer Effects (PDF)
> Fluoride-Related Skeletal Effects: Evaluations of Key Studies (PDF)
> Dental Fluorosis: Evaluations of Key Studies (PDF)
> Comment-response Summary Report for the Peer Review of the Fluoride: Dose-Response Analysis for Non-Cancer Effects Document (PDF)
> Fluoride: Exposure and Relative Source Contribution Analysis (PDF)
> Comment-Response Summary Report for the Peer Review of the Fluoride: Exposure and Relative Source Contribution Analysis Document (PDF)
> http://water.epa.gov/drink/contaminants/basicinformation/fluoride.cfm
> http://water.epa.gov/lawsregs/rulesregs/regulatingcontaminants/sixyearreview/
> http://www.epa.gov/oppsrrd1/registration_review/sulfuryl-fluoride/index.html

Apparently the EPA did not publish its request for comment in the Federal Register. I looked for it but did not find it.

I wrote to HHS on February 13 requesting an extension because of procedural HHS made in the request for comment due February 14. You granted my request and extended the comment date to April 15. Thank you.

In my letter dated April 14, 2011, I discussed continuing procedural errors in the HHS-EPA requests for comment and demanded that HHS and EPA extend the time for comment again. I have received no response to this letter.

I am sending this letter both to Kathleen Sibelius and to Lisa P. Jackson. Everything in this letter applies equally to the two agencies. Everything said about HHS applies to CDC and to some extent to FDA.

TWO DIFFERENT REQUESTS FOR COMMENT

HHS's request for comment proposes a recommendation of a new flat .7 ppm fluoridation level in all climates. For the person who drinks 2.0 liters of water per day, this would mean a consumption of 1.4 mg of fluoride.

EPA's request for comment appears to propose a recommendation of a reference dose of .08 mg per kg of body weight per day :

> The combination of the drinking water and dietary estimates thus become the basis for the OW inorganic fluoride Reference Dose (RfD) estimate of 0.08 mg F/kg/day. The RfD is an estimate of the fluoride dose that will protect against severe dental fluorosis, clinical stage II skeletal fluorosis and skeletal fractures while allowing for a fluoride exposure adequate to protect

> against tooth decay for children and adults. Confidence in the RfD is considered to be medium. (page 3)

For a 70 kg person, a reference dose of 0.08 mg F/kg/day would mean a total daily dose of 5.6 mg of fluoride. For a person who drinks 2.0 liters of water per day, this would mean he could drink water fluoridated at 2.8 ppm.

I say it "appears to propose" first because the wording is not clear and second because the number is so high. It is hard to believe that EPA would propose such a fluoridation level. Third, the EPA reference dose consumption equivalent of 2.8 mg of fluoride per day so far exceeds the HHS proposal of 1.4 mg per day (.7 ppm x 2 liters per day). And as I point out below, it appears that EPA agrees with and supports the HHS proposal.

AN OVERLAPPING, JOINT REQUEST FOR COMMENT

Although the two requests for comment differ, they still overlap and must be read and commented on jointly. The title of EPA's News Release page is: "EPA and HHS Announce New Scientific Assessments and Actions on Fluoride / Agencies working together to maintain benefits of preventing tooth decay while preventing excessive exposure".

The two requests are interdependent in other ways. For example, HHS's News Release page has a link to EPA's Fluoride Risk Assessment page.

Likewise, EPA's News Release page includes a link to the HHS-CDC page entitled Community Water Fluoridation. EPA's press release page contains a link to the Proposed HHS Recommendation page, which still displays the bad link.

EPA's News Release page claims that HHS and EPA are working together on this issue and are in agreement:

> Today both HHS and EPA are making announcements on fluoride based on the most up to date scientific data," said EPA Assistant Administrator for the Office of Water Peter Silva.
>
> HHS and EPA reached an understanding of the latest science on fluoride and its effect on tooth decay prevention, and the development of dental fluorosis that may occur with excess fluoride consumption during the tooth forming years, age 8 and younger.

The HHS and EPA proposals must both be read as response to the 2006 National Research Council report, which I will comment on below. EPA's Fluoride Risk

Assessment page refers immediately to the 2006 NRC Report recommendations for additional research. So too does the EPA's New Fluoride Risk Assessment.

However, the HHS News Release web page and official Federal Register notice of the proposed new .7 ppm proposal make no mention of the 2006 National Research Council report. Note however, HHS does link to the EPA's Fluoride Risk Assessment, which does refer to the 2006 NRC Report. The HHS failure to mention the NRC is probably because it is only the EPA which is obligated by law to hire the NRC from time to time for agency evaluation.

For all these reasons it is fair to conclude that HHS and EPA are coordinating their efforts, that the two requests for comment should be considered together, and that both should be viewed as attempts to respond to the 2006 NRC Report.

TWO BADLY WORDED REQUESTS FOR COMMENT

The most fundamental problem with these two requests for comment is that they use the words "fluoride" with no precision. Does "fluoride" refer to naturally occurring calcium fluoride (CaF_2) or to artificial fluorides such as silicofluorides (SiFs) and sodium fluoride (NaF)?

The 4.0 ppm MCLG and MCL which EPA set under the SDWA has to refer to naturally occurring CaF_2, as I will discuss below. But HHS is recommending that "fluoride" be added at .7 ppm, and this has to be a reference to SiFs and NaF, because these are the two types of fluoride used for artificial water fluoridation.

On the other hand, the EPA is recommending a reference dose of 0.08 mg F/kg/day, which would mean a total daily dose of 4.9 mg of fluoride for a 70 kg person. For a person who drinks 2.0 liters of water per day, this would mean he could drink water fluoridated at 2.45 ppm. However, the EPA acting under the SDWA should only be regulating the maximum amount of naturally occurring CaF_2 which should be allowed and not the amount of NaF or SiF which should be added. Conversely, EPA endorses HHS's proposal, which pertains to adding NaF or SiF.

Thus we can see that the two requests for comment are badly worded.

OTHER COMMENTS TO HHS AND EPA

Others have presented excellent replies to the HHS and EPA. HHS and EPA should publish our replies on their web sites. See the following:

FAN submission on Dose-Response Analysis for Non-Cancer Effects
FAN submission on Exposure and Relative Source Contribution Analysis

APPENDIX A - studies published since the 2006 National Research Council's landmark report on the toxicology of fluoride - attached to FAN's submissions
Kathleen Thiessen, PhD (for the International Academy of Oral Medicine and Toxicology)
Bill Osmunson, DDS, MPH (President, Washington Action for Safe Water)

1993 NRC REPORT

The SDWA requires that EPA periodically review standards for water contaminants. EPA commissions the National Research Council to do these reviews. A review was done in 1993. The recommendations which NRC gave EPA in 1993 are repeated in the 2006 NRC Report at pages 19-20. In 1993 NRC Report the NRC told EPA that EPA should investigate the following topics:

> the metabolic characteristics of fluoride in infants, young children, and the elderly, the metabolic characteristics of fluoride in patients with progressive renal disease, determine soft-tissue fluoride concentrations and their relation to plasma fluoride concentrations, studies on the contribution of ingested fluoride and fluoride applied topically to teeth to prevent caries, analytical studies (case control or cohort) of the cancer sites that are most highly suspect, osteosarcomas and cancers of the buccal cavity, kidney, and bones and joints.

EPA and HHS (including CDC) focused on teeth and bones and failed to investigate most of these topics, and their failure to do so constitutes bad faith.

2006 NRC REPORT

It was in 2003 that EPA requested the latest NRC study, which was completed in 2006, referred to here as the 2006 NRC Report. In it the NRC suggested many topics which EPA should study in connection with drinking water fluoridation. The long list of topics included the following:

> caries, fluorosis, bone fractures, fertility, thyroid function, increased calcitonin activity, increased parathyroid hormone activity, secondary hyperparathyroidism, impaired glucose tolerance, and possible effects on timing of sexual maturity, endocrine effects and brain function, osteosarcoma. See 2006 NRC Report, pages 6-9.

A look at the supporting documents that HHS and EPA have submitted shows they have only addressed caries, dental fluorosis, bone fractures, and skeletal fluorosis and that they have avoided all the other issues raised by the NRC.

The easiest way to illustrate this is to go to the bibliography section of the Proposed HHS Recommendation for Fluoride Concentration in Drinking Water for Prevention of Dental Caries as posted in the Federal Register for January 13, 2011, on page 2383. I will simply quote short excerpts from the titles of the authorities cited.

> topical fluoride; severity of enamel fluorosis; temperature and water intake; caries prevention; dental practice and the community; sports-related craniofacial injuries; dental caries; dental caries; dental fluorosis; prevention and reversal of dental caries; optimum fluoride concentrations; climate and controlled fluoridation; preventing caries; dental caries and dental fluorosis at varying water fluoride concentrations; water consumption; decayed, missing and filled teeth; dental examination findings; decayed, missing, and filled teeth; fluoride and the caries process; fluorosis of permanent incisors and fluoride intake from infant formula, cental caries; atlas of the mouth in health and disease; fluoride and dental caries; water fluoridation; review of public water fluoridation; health needs of children; risk factors for dental fluorosis in a fluoridated community; enamel fluorosis in a fluoridated population; fluorosis associated with fluoride supplementation; infant formula, and fluoride dentifrice use; risk for fluorosis; fluid consumption related to climate; interventions to prevent caries; oral and pharyngeal cancers, and sports-related craniofacial injuries; dental caries; oral health, anticaries drug products; water standards; anticaries drug products; source contribution analysis; fluoride exposure and relative source; dose-response analysis for non-cancer effects

Note that most or all of the authorities cited by HHS and EPA deal with caries, dental fluorosis, bone fractures, and skeletal fluorosis. None of the authorities deals with the other topics listed by NRC.

In its request for comment the EPA claims to be responding to the 2006 NRC Report on fluoridation. The EPA states in its news release:

> The new EPA assessments of fluoride were undertaken in response to findings of the National Academies of Science (NAS). At EPA's request, NAS reviewed new data on fluoride in 2006 and issued a report recommending that EPA update its health and exposure assessments to take into account bone and dental effects and to consider all sources of fluoride.

The EPA states in its Fact Sheet:

> The most recent NRC panel recommended in 2006 that EPA conduct a new quantitative risk assessment for severe dental fluorosis, the risk for increased bone fractures as related to fluoride, and the less than crippling form of skeletal fluorosis (Stage II skeletal fluorosis).

Yes, the NRC said the EPA should study "bone and dental effects" and "bone fractures as related to fluoride, and the less than crippling form of skeletal fluorosis". However, that is not all that the NRC said that EPA should study. I will quote from the 2006 NRC Report, page 6-9, as follows:

> More research is needed to clarify the effect of fluoride on brain chemistry and function. (page 6)
>
> Although the studies lacked sufficient detail for the committee to fully assess their quality and relevance to U.S. populations, the consistency of the results appears significant enough to warrant additional research on the effects of fluoride on intelligence. (page 6)
>
> A few human studies suggested that high concentrations of fluoride exposure might be associated with alterations in reproductive hormones, effects on fertility, and developmental outcomes, but design limitations make those studies insufficient for risk evaluation. (page 6)
>
> The chief endocrine effects of fluoride exposures in experimental animals and in humans include decreased thyroid function, increased calcitonin activity, increased parathyroid hormone activity, secondary hyperparathyroidism, impaired glucose tolerance, and possible effects on timing of sexual maturity. … [R]ecent work on borderline hormonal imbalances and endocrine-disrupting chemicals indicated that adverse health effects, or increased risks for developing adverse effects, might be associated with seemingly mild imbalances or perturbations in hormone concentrations. Further research is needed to explore these possibilities. (page 7)
>
> Whether fluoride might be associated with bone cancer has been a subject of debate. Bone is the most plausible site for cancer associated with fluoride because of its deposition into bone and its mitogenic effects on bone cells in culture. (page 7)
>
> A relatively large hospital-based case-control study of osteosarcoma and fluoride exposure is under way at the Harvard School of Public Health and is

> expected to be published in the summer of 2006. That study will be an important addition to the fluoride database, because it will have exposure information on residence histories, water consumption, and assays of bone and toenails. The results of that study should help to identify what future research will be most useful in elucidating fluoride's carcinogenic potential. (page 8)
>
> Carefully conducted studies of exposure to fluoride and emerging health parameters of interest (e.g., endocrine effects and brain function) should be performed in populations in the United States exposed to various concentrations of fluoride. It is important that exposures be appropriately documented. (page 10)

HHS and EPA have produced collections of studies dealing with caries, dental fluorosis, bone fractures, and skeletal fluorosis, but they have produced nothing dealing with the other medical issues listed by the NRC: fertility, thyroid function, increased calcitonin activity, increased parathyroid hormone activity, secondary hyperparathyroidism, impaired glucose tolerance, and possible effects on timing of sexual maturity, endocrine effects and brain function, and osteosarcoma.

For a review of the many relevant studies released since 2006 when HHS and EPA have ignored.

The study entitled "Fluoride: Dose-Response Analysis For Non-cancer Effects" dealt only with non-cancerous affects relating to teeth and bones. The EPA should have done a similar study entitled Fluoride: "Dose-Response Analysis For Cancer Effects".

The sources cited by EPA are not current. If you look at the bibliography for Fluoride: Dose-Response Analysis For Non-cancer Effects (PDF), you will see that the authorities cited were published – in the order they appear – in the following years: 1960, 1942, 1966, 2010, 1951, 1939, 1943, 1962, 1949, 1959, 1979, 1945, 1949, 2010, 2005, 1933, 1921, 1943. This means that the work of the EPA is incomplete, insufficient, and inadequate to the task, but more specifically, the EPA's research is stale. EPA has not kept up with relevant current research.

The EPA lauds drinking water fluoridation without providing any scholarly writings which would justify such praise:

> These actions will maximize the health benefits of water fluoridation, an important tool in the prevention of tooth decay while reducing the possibility of children receiving too much fluoride. The Centers for Disease Control and Prevention named the fluoridation of drinking water one of the 10 great

> public health achievements of the 20th century.
>
> One of water fluoridation's biggest advantages is that it benefits all residents of a community—at home, work, school, or play," said HHS Assistant Secretary for Health Howard K. Koh.

Studies found in the document entitled Fluoride-Related Skeletal Effects: Evaluations of Key Studies (PDF) reach conclusions that disfavor fluoridation. Read the following conclusions:

> The people of Mundargi and Hungund taluk consuming water containing more than 2 ppm of fluoride [naturally occurring CaF_2] were suffering from both dental and skeletal fluorosis. Major symptoms of dental fluorosis included lack of luster, browning, pain, pus and untimely loss of teeth. Skeletal fluorotic symptoms observed included tingling and numbing of extremities, pain in joints and knee, bending, stiff limbs, stiff vertebral column and unable to carry out the routine duties. Preventative measures in these villages in the form of a supply of safe drinking water and/or defluoridation of water is needed. (page 8)
>
> In Naqu County, Tibet, the total daily fluoride intake in adults was estimated to equal 12 mg, with 99% coming from brick-tea containing foods. The occasional urinary fluoride level was 5.73 mg/L and the incidence of adult skeletal fluorosis among subjects examined was 89% by physical examination and 83% by radiographic diagnosis. (page 12)
>
> The patient was exposed to prolonged (55 years) excessive fluoride in drinking water (4-8 ppm). … Fluorosis was confirmed in an extracted tooth in which fluoride content ranged from 614 to 5299 ppm, depending on the part of the tooth. … The characteristic vertebral changes of skeletal fluorosis and severe osteophytosis were probably the basis for the patient's neurological deficits. … This case is of regional importance since fluorosis is endemic to Arizona. The authors stress that water fluoridation programs (at 1 ppm) have no potential for causing skeletal or neurological complications as reported in this case due to the low fluoride concentrations. (page 15)
>
> The study authors' hypothesis was that higher fluoride intake would result in greater bone mass and fewer fractures. The findings did not support the hypothesis. (page 59)
>
> Residence in the higher-fluoride community was associated with a significantly lower radial bone mass in premenopausal and postmenopausal women, an increased rate of radial bone mass loss in premenopausal

> women, and significantly more fractures among postmenopausal women. For women in the higher fluoride community, aged 55-80 yr, the 5-year relative risk of any fracture or of wrist, spine, or hip fracture was increased compared to the control community. (page 64)
>
> Susheela and Bhatnagar (2002) concluded that fluorosis can be reversed. Removing fluoride sources and a diet containing essential nutrients and antioxidants can significantly improve health (i.e. reduce fluoride toxicity) and reduce fluoride in the urine and serum of fluorosis patients. This was shown in 10 patients who had complete recovery of a variety of clinical symptoms and lower urine and serum fluorine after reducing their intake of fluoride in the drinking water. (page 70)

Results in the third document, "Dental Fluorosis: Evaluations of Key Studies (PDF)" were not all supportive of fluoridation. I highlight a few examples:

> The prevalence of fluorosis increased from 16% at 0.43 ppm F to 100% at 3.41 ppm F and the degree of fluorosis severity increased as fluoride levels increased. (page 7) [At 1.10 ppm fluoride, 9.3% suffered from mild fluorosis and 4.1% suffered from moderate fluorosis.]
>
> The severity of dental fluorosis was significantly lower in Kibosho (0.2 mg F/l) than in Arusha (3.6 g mg F/l) (p=0.008). (page 16)

These EPA studies dealt with drinking water naturally fluoridated with CaF_2 but none of them commented on how results might be different if sodium fluoride or fluorosilicates were the fluoridating material.

Regarding the document entitled Comment-Response Summary Report for the Peer Review of the Fluoride: Exposure and relative Source Contribution Analysis Document, peer reviewers were asked to answer this question:

> Do you support the [Office of Water's] conclusion that an RfD of 0.07 mg/kg/day will be protective for severe dental fluorosis in children and skeletal effects in adults while still providing for the beneficial effects of fluoride? (page 4)

Some of the reviewers concluded that a reference dose of 0.07 mg/kg/day was not protective. Read some sample comments:

> I do not agree with this recommendation as it is based on limiting severe fluorosis to 1% of the population. I suggest that the level be lowered to eliminate severe fluorosis. One percent of the population represents a

> relatively large number of individuals, and given the data showing the primarily topical effects of fluoride I do not see a rationale for acceptance of the 1% severe fluorosis. (A-10)
>
> Yes, I am in support of the 0.07 mg/kg/day but I would admit the uncertainty that surrounds this estimate. (B-10)
>
> I do not agree with this recommendation as it is based on limiting severe fluorosis to 1% of the population, and the IOM's recommended adequate intake level. I suggest that the level be lowered to eliminate severe fluorosis. One percent of the population represents a relatively large number of individuals. These are the individuals who are most likely uniquely sensitive to fluoride. (B-14)
>
> Based on the data that was presented and the rationales provided I think the OW does make a very convincing argument that 0.07mg/kg/day will be protective against the more severe forms of fluorosis in children and the skeletal effects in adults in a vast majority of the population. I don't think that a claim can be made that no single individual will be completely immune from the development of severe fluorosis even at this recommended RfD. (B-18)

HHS and EPA do not get an E for effort. They get an F for lack of effort.

HHS cites the Beltran-Aguilar study in its bibliography and accepts it as a correct statement of how much dental fluorosis afflicts the people of the United States. (Beltran-Aguilar Prevalence and Severity of Enamel Fluorosis in the United States, http://www.cdc.gov/nchs/data/databriefs/db53.htm.) As of 2004 40.6% of those 12 to 15 years of age have some degree of fluorosis, while 8.6% suffer from mild fluorosis and 3.6% suffer from moderate and severe fluorosis.

HHS and EPA propose a reduction in fluoridation from a maximum of 1.2 ppm down to a maximum of .7 ppm. HHS has somehow made the decision that it is no longer safe to fluoridate the nation at .7 ppm to 1.2 ppm, that it will be safe to fluoridate the nation uniformly at .7 ppm, and that fluoridation at .7 ppm is still enough to protect the nation's teeth and other parts of the body.

However, the studies cited by HHS and EPA do not support continuation of fluoridation at any level whatsoever. My colleagues have presented scholarly journal articles which show that serious fluorosis can occur with fluoridation at .7 ppm, so I will not plow that ground again.

There is no math and no logic presented which would lead to a conclusion that fluoridation at a uniform .7 ppm for all water districts will eliminate fluorosis which is happening at .7 ppm to 1.2 ppm. Likewise, there is no math and no logic presented which would cause one to feel confident that fluoridation at a uniform .7 ppm for all water districts would be as protective as zero ppm. My colleagues are submitting other letters in which they point out that significant fluorosis and other harms occur to people who drink SiF and NaF at .7 ppm.

The same can be said for EPA's proposal that a new higher reference dose of reference dose of .08 mg per kg of body weight per day. For a 70 kg person, this would be 5.6 mg per day. Assuming the EPA is talking about naturally occurring CaF_2, this would still be an enormous amount of fluoride.

BEST AVAILABLE PEER-REVIEWED SCIENCE

The SDWA says:

> Administrator shall use … the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices….

Instead EPA and HHS have confined their research solely to teeth and bones, ignoring the instruction of the NRC to study the following additional areas:

> fertility, thyroid function, increased calcitonin activity, increased parathyroid hormone activity, secondary hyperparathyroidism, impaired glucose tolerance, and possible effects on timing of sexual maturity, endocrine effects and brain function, osteosarcoma. See 2006 NRC Report, pages 6-9.

This is an example of bad faith on the part of these agencies.

TEETH AND BONES ONLY, AND PRIMARILY TEETH

As pointed out above, HHS and EPA go through a somersaulting back flip in logic to convince themselves that artificial fluorides affect teeth and bones but no other organs. Between teeth and bones, HHS and EPA focus more on teeth than bones.

HHS and EPA go through a second somersaulting back flip in logic to convince themselves that somehow fluoride consumed orally goes selectively to the teeth and benefits or harms the teeth without benefiting or harming bones.

Such scientific primitivism is on the order of the medieval insistence that the earth is flat. President Obama assured us as part of "change you can believe in" that our agencies were going to start doing real science. The thoroughly unscientific approach of HHS and EPA merit a sharp rebuke.

HHS and EPA have failed to do the research which NRC said in 2006 and in 1993 that they should do. I have to ask what these two agencies have been doing for the last five years.

LIMIT FLUOROSIS? ELIMINATE FLUOROSIS?

The EPA states the joint position of HHS and EPA on artificial water fluoridation in its EPA News Release:

> HHS' proposed recommendation of 0.7 milligrams of fluoride per liter of water replaces the current recommended range of 0.7 to 1.2 milligrams. This updated recommendation is based on recent EPA and HHS scientific assessments to balance the benefits of preventing tooth decay while limiting any unwanted health effects. These scientific assessments will also guide EPA in making a determination of whether to lower the maximum amount of fluoride allowed in drinking water, which is set to prevent adverse health effects. (emphasis added)

Currently 8.6% suffer from mild fluorosis and 3.6% suffer from moderate and severe fluorosis. Mild, moderate, and severe fluorosis are not acceptable maladies. Mild fluorosis is noticeable and embarrassing. Moderate fluorosis is ugly. Severe fluorosis is very ugly. Teeth with these levels of fluorosis crack, split, and decay more easily. One who suffers from dental fluorosis also suffers from fluorosis of his bones throughout his body. No one should suffer from any level of fluorosis. No level of caries reduction could justify knowingly afflicting any number of people with any level of fluorosis. "Unwanted health effects" should not be limited; they should be eliminated.

A reduction in artificial fluoridation to .7 ppm will probably reduce the degree to which we are affected, but it will not eliminate the effect. No fluoride should be added to drinking water. Those who want to drink fluoride can now buy bottled water which is fluoridated. Those who want to avoid fluoride should not have to seek out non-fluoridated water.

The HHS and EPA value system is completely upside down. It is in complete contradiction to the values implicit in the Clean Water Act and the Safe Drinking Water Act, which are so completely ignored by HHS and EPA.

CONFUSING CONCENTRATION AND DOSE

HHS and EPA make a fundamental error in focusing on concentration. HHS recommends a fluoride concentration of .7 ppm. EPA recommends a reference dose of .08 mg per kg of body weight per day. The problem is that people drink widely varying amounts of water. Babies drink 2.5 times as much water per pound of body weight as do adults. Five percent of the population drinks 3.5 liters of water per day on average and one percent drinks 6.09 liters, thus getting 3.5 mg to 6.09 mg of fluoride when water is fluoridated to a level of 1.0 mg per liter or 1.0 ppm. Some athletes drink 6.0 liters of fluids per day when they are working out. Diabetics can drink 8.0 liters per day. Children who play, athletes, workers who sweat, those with kidney disease, and diabetics drink large quantities of water. See 2006 NRC report p. 30-33. Thus, any recommendation that all drink water fluoridated at .7 ppm or any specific reference dose fails to take into account the variability in consumption and is invalid.

EPA UNION SUES EPA

The Safe Drinking Water Act says:

> In carrying out this section, and, to the degree that an Agency action is based on science, the Administrator shall use—
>
> > (i) the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices….

The EPA union is suing the EPA because the EPA union wants the EPA to practice real science instead of fake science when it comes to fluoridation.

The fact that this suit continues after more than ten years is a disgrace. It shows that the administrative level of the EPA does not serve the needs of the people and the environment but serves the needs of the chemical, fertilizer, agricultural, and other businesses which pull the strings at EPA

THE CLEAN WATER ACT

The Federal Water Pollution Control Act of 1972, commonly known as the Clean Water Act, states its guiding objective as follows:

> SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the

> provisions of this Act— (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985: … (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited.…"

This section of the Clean Water Act states the fundamental value system which should underlie all actions by the EPA as well as other agencies. Returning waters to "chemical, physical, and biological integrity" is the goal. "The discharges of pollutants" should be "eliminated".

One does not accomplish such goals by discharging fluoride toxic waste into lakes, rivers, and seas – after passing it through public water systems. Under the Clean Water Act, municipalities which discharge fluoride toxic waste into drinking water are required to obtain a discharge permit, but none is required for dumping fluoride toxic waste into our drinking water.

SAFE DRINKING WATER ACT

The SDWA is found in Title 42 of the US Code. Some of the more important and relevant provisions are quoted here:

> § 300g–1. National drinking water regulations
>
> The Administrator shall … publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for a contaminant … if the Administrator determines that—
>
> (i) the contaminant may have an adverse effect on the health of persons;
>
> (ii) the contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and
>
> (iii) in the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems.
>
> In selecting unregulated contaminants for consideration … the Administrator shall select contaminants that present the greatest public health concern. The Administrator, in making such selection, shall take into consideration, among other factors of public health concern, the effect of

such contaminants upon subgroups that comprise a meaningful portion of the general population (such as infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations) that are identifiable as being at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

Urgent threats to public health.— The Administrator may promulgate an interim national primary drinking water regulation for a contaminant … to address an urgent threat to public health as determined by the Administrator after consultation with and written response to any comments provided by the Secretary of Health and Human Services, acting through the director of the Centers for Disease Control and Prevention or the director of the National Institutes of Health.

In carrying out this section, and, to the degree that an Agency action is based on science, the Administrator shall use—

> (i) the best available, peer-reviewed science and supporting studies conducted in accordance with sound and objective scientific practices….

When proposing any national primary drinking water regulation that includes a maximum contaminant level, … the Administrator shall … use … an analysis of … [t]he effects of the contaminant on the general population and on groups within the general population such as infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations that are identified as likely to be at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

Each maximum contaminant level goal established under this subsection shall be set at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.

(B) Maximum contaminant levels.— Except as provided in paragraphs (5) and (6), each national primary drinking water regulation for a contaminant for which a maximum contaminant level goal is established under this subsection shall specify a maximum contaminant level for such contaminant which is as close to the maximum contaminant level goal as is feasible.

A determination by the Administrator that the benefits of a maximum contaminant level or treatment requirement justify or do not justify the costs of complying with the level shall be reviewed by the court pursuant to section 300j–7 of this title only as part of a review of a final national primary drinking water regulation that has been promulgated based on the determination and shall not be set aside by the court under that section unless the court finds that the determination is arbitrary and capricious.

No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water.

§ 300g–2. State primary enforcement responsibility

For purposes of this subchapter, a State has primary enforcement responsibility for public water systems during any period for which the Administrator determines (pursuant to regulations prescribed under subsection (b) of this section) that such State—

(1) has adopted drinking water regulations that are no less stringent than the national primary drinking water regulations promulgated by the Administrator ….

§ 300g–3. Enforcement of drinking water regulations

Whenever the Administrator finds during a period during which a State has primary enforcement responsibility for public water systems … that any public water system … does not comply with any schedule or other requirement imposed pursuant thereto, he shall … issue an order … requiring the public water system to comply with such applicable requirement or the Administrator shall commence a civil action ….

§ 300g–6. Prohibition on use of lead pipes, solder, and flux

No person may use any pipe, any pipe or plumbing fitting or fixture, any solder, or any flux, after June 19, 1986, in the installation or repair of—
(i) any public water system; or
(ii) any plumbing in a residential or nonresidential facility providing water for human consumption, that is not lead free (within the meaning of subsection (d) of this section).

CAN HHS AND EPA RECOMMEND WHAT THEY CANNOT REQUIRE?

The SDWA specifically prohibits requiring the addition of any chemical to drinking water for medical purposes. See 42 USC 300g-1(b)(11)[3]:

> No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water."

HHS and EPA are proposing to recommend the addition of fluoride to drinking water at .7 ppm. This represents a reduction from the current level, which is a range from .7 ppm to 1.2 ppm, depending on the temperature and resulting differences in water consumption levels.

Is fluoride a drug? Is it added for "preventive health care purposes:"? Is it added for "purposes unrelated to contamination of drinking water", such as removing other contaminants? The Food, Drug, and Cosmetics Act (FDCA) defines a drug as an article

> … intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animal. 21 U.S.C. 321 (g)(1)(B)

Fluoride mixed with water at 1.0 ppm or .7 ppm meets federal definitions of the terms "drug" and "medication." Fluoride is added for "preventive health care purposes", and therefore fluoride is a drug. The mixture of fluoride with water is referred to here as the fluoride-water drug.

HHS and EPA propose to recommend fluoridation at .7 ppm. However, they cannot require fluoridation at any level. Can these agencies recommend what they cannot require? I say No.

I have looked hard but I have failed to find any federal statute or regulation which authorizes HHS or CDC to recommend the addition of fluoride or any other chemical to drinking water for medical reasons. So we have no authorization to recommend and a prohibition against requiring fluoridation. Thus, HHS and CDC are acting outside the scope of their statutory charge.

I would argue that an agency's "recommendation" to add the fluoride drug to drinking water is a "lesser included offense" of "requiring" the fluoride drug to be added. To recommend adding the fluoride drug is to state that you will take no action to stop it. To recommend adding it is to permit adding it. To recommend adding it is to encourage states and municipalities to require it.

HHS and EPA are not "requiring" fluoridation but they are conspiring with and aiding, abetting, and enabling municipalities to require it. In response to HHS's announcement that HHS is recommending a reduction in fluoridation to .7 ppm, water districts around the country are reducing fluoridation to .7 ppm. They believe they are taking their marching orders from the CDC.

Clearly the federal government cannot require that municipalities add fluoride to drinking water. But can the states require municipalities to fluoridate? California, Connecticut, Delaware, Georgia, Illinois, Kentucky, Louisiana, Minnesota, Nebraska, Ohio, South Dakota, Nevada, Michigan, Massachusetts, Maine, New Hampshire, Utah, the District of Columbia, and Puerto Rico have all made fluoridation mandatory to varying extents.

The EPA delegates to the 50 states the work of enforcing and implementing the SDWA and national primary drinking water regulations. The EPA grants primacy to a designated agency in each state to implement the SDWA. 40 CFR 42.10. In Washington for example, the designated lead agency is the Department of Health. RCW 70.119A.080, RCW 43.21A.445. In RCW 43.21A.445 several Washington agencies led by the Department of Health are "… authorized to participate fully in and are empowered to administer …" the SDWA.

Section 300g–2 of the SDWA states:

> For purposes of this subchapter, a State has primary enforcement responsibility for public water systems … [provided that said state] … has adopted drinking water regulations that are no less stringent than the national primary drinking water regulations promulgated by the Administrator under subsections (a) and (b) of section 300g–1

If 300g-1 prohibits a federal agency from passing a regulation which requires adding the fluoride water drug to drinking water, and if state regulations must be "no less stringent than the national primary drinking water regulations", then no state may pass regulations requiring that fluoride be added to drinking water.

It is thus illegal for states to make fluoridation mandatory. States that do are violating the plain language of the SDWA.

I conclude that states cannot require municipalities to fluoridate. But what about municipalities? Can a municipality choose to fluoridate – assuming their state does not require it but the municipality itself chooses to do so on its own? 40 CFR 142.3 provides:

> … [T]his part [40 CFR Part 142—National Primary Drinking Water Regulations Implementation] applies to each public water system in each State.

Municipalities must abide by "national primary drinking water regulations". Thus, the SDWA is arguably binding on municipalities and arguably prohibits municipalities from enacting laws which require drinking water fluoridation.

A municipality might argue that its ordinance requiring fluoridation is a non-national drinking water regulation and therefore exempt from the national primary drinking water regulation which prohibits "the addition of any substance for preventive health care purposes unrelated to contamination of drinking water". The municipality would be free to add all the lead, arsenic, and fluoride it wants to its water.

Fluoridation had been going on for 25 years when the EPA was created in 1970. EPA did not summon up its regulatory courage and go against the chemical industry and other fluoridation supporters.

The FDA, which goes back to 1906, could have taken action against fluoridation but never did so, and as I will point out below entered into illegal memorandum agreement with the EPA, abandoning any and all authority over fluoridation.

The relevant SDWA statute is phrased poorly. It says no national regulation can require medication of drinking water; it does not say that no water district may require medication of drinking water.

Also the word "national" is poorly chosen and poorly used. Is the SDWA to be read narrowly or broadly when it says:

> No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water.

Is this a mere technical restriction which would prevent passage of a national regulation requiring medicating drinking water – including medicating water with fluoride – but which would allow passage of a state statute or municipal ordinance requiring medicating with fluoride?

Or, when Congress passed the SDWA, was it the intent of Congress to state that nowhere in the nation may regulations be passed requiring fluoridation?

Would it not seem absurd to pass a law which – by the use of the word "national" – would prevent federal agencies from requiring fluoridation but which would assign to the states the authority to enforce the SDWA and allow states and municipalities to require what a federal agency cannot require?

There is a rule of statutory interpretation that says that statutes shall not be read as having no meaning. If no national regulation can be passed requiring medication of drinking water – including medicating with fluoride —, and if states are the enforcers of the SDWA, then are the states obligated to enforce all parts of the SDWA except for that one statute prohibiting a drinking water regulation requiring medication of drinking water – including medicating with fluoride — because that statute includes the word "national"? If this interpretation is followed, then the SDWA provision which assigns to the states the duty to enforce the SDWA is rendered meaningless, because states may require medication with fluoride even when a federal agency may not.

Another method of statutory interpretation is to ignore words which are redundant or meaningless or which render the meaning of a statute meaningless, and which appear to be chosen carelessly, provided there is another way of interpreting such words which makes sense.

I am suggesting that the word "national" has another permissible meaning and therefore can and should be categorized as either an incidental word given where it is placed in the sentence or one which adds no rational meaning to the statute unless it is put in a different place and perhaps reworded, and that the word "national" can be read as part of a law which really means that on a nationwide basis no one may pass a regulation requiring that medication be added to water. I am suggesting that the real intent of the statute is this:

> Nowhere in the nation shall any … primary drinking water regulation be enacted which requires the addition of any substance for preventive health care purposes unrelated to contamination of drinking water.

I am suggesting that the prohibition against federal agencies passing a regulation requiring medication – including medication with fluoride – can be interpreted as a general statement that as a matter of policy such a regulation is disfavored no matter who would try to enact such a regulation.

Nevertheless, the way events have played out, municipalities are the governmental bodies that make the ultimate decision to require fluoridation. HHS (including the CDC), the EPA, and all other federal agencies deny vigorously that they require fluoridation. Most states claim they do not require it but only allow municipalities

to require it. Municipalities in turn rely on the fact that the CDC and EPA recommend fluoridation.

This brings us back to the word "national". Although there is no national regulation which requires fluoridation, there are unofficial nationwide endorsements of fluoridation by EPA, CDC, the Surgeon General, and others. FDA permits fluoridated bottled water and refrains from prohibiting fluoridation of tap water. EPA set up and still finances NSF, which certifies SiFs as safe and appropriate for adding to drinking water.

However, the SDWA is binding on municipalities in 40 CFR 142.3 which provides:

> … [T]his part [40 CFR Part 142—National Primary Drinking Water Regulations Implementation] applies to each public water system in each State.

Municipalities must enforce national primary drinking water regulations, and the prohibition of enacting any regulation requiring adding medication to drinking water – including the fluoride drug – is part of the SDWA and is therefore part of the restrictions which apply to municipalities.

> No … primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water

Note that I left out the word "national". It is my theory that the placement of the word "national" was not intended to eviscerate this law on the state and municipal levels.

FOUR PPM MCL

The SDWA sets a 4 ppm maximum contaminant level, MCL, for fluoride. Most people think this means that the SDWA authorizes any state or municipality to add any amount of fluoride of any kind it wants to add up to 4.0 ppm, and thus that 1.0 ppm or .7 ppm SiF or NaF added level is more than safe.

It comes as a big surprise to most people to learn that this 4 ppm limit is not an authorization to add fluoride of any kind up to 4 ppm, but a regulation requiring removal of any fluoride present in drinking water in excess of 4 ppm.

Further, the type of fluoride required to be removed is almost always naturally occurring CaF_2, fluorite or fluorspar, the only type of fluoride which occurs in nature in any significant quantity. In rare cases there are artificial fluorides which

are found in source water, such as on the Colorado River, where cities are allowed to dump sewage into the river, to be used by cities downstream as drinking water, however, levels of SiF are typically around .2 ppm downstream from such dumping.

The 2006 NRC Report at page xiii clarifies this, saying:

> In 1986, the U.S. Environmental Protection Agency (EPA) established a maximum contaminant level goal (MCLG) of 4 mg/L and a secondary maximum contaminant level (SMCL) of 2 mg/L for fluoride in drinking water. These exposure values are not recommendations for the artificial fluoridation of drinking water, but are guidelines for areas in the United States that are contaminated or have high concentrations of naturally occurring fluoride.

The 2006 NRC Report at page 13 says the same thing and adds more detail:

> In 1986, EPA established an MCLG [maximum contaminant level goal] and MCL [maximum contaminant level] for fluoride at a concentration of 4 milligrams per liter (mg/L) and an SMCL [special contaminant level] of 2 mg/L. These guidelines are restrictions on the total amount of fluoride allowed in drinking water. … EPA's drinking-water guidelines are not recommendations about adding fluoride to drinking water to protect the public from dental caries. … Instead, EPA's guidelines are maximum allowable concentrations in drinking water intended to prevent toxic or other adverse effects that could result from exposure to fluoride.

From 1975 to 1986 the MCL had been 1.4-2.4 ppm, a range dependent on the community's average temperature. The EPA set this range to protect against moderate/severe fluorosis, an effect which EPA said it considered adverse to a person's health.

However, in 1986 EPA raised the MCL to 4.0 ppm. The EPA was under pressure from a dental directors' association to adopt a 4.0 ppm MCL. The state of South Carolina also supported the 4.0 ppm level because it had many water systems in the state which had water at up to 2.9 ppm from naturally occurring fluoride. The state did not want to spend the money it would cost to filter out the CaF_2. So EPA political appointees agreed to the 4.0 ppm MCL and the ruling that moderate to severe fluorosis was a mere cosmetic effect.

It is important to understand then that when the NRC concludes that "the MCLG of 4 mg/L is not protective against severe enamel fluorosis", it is referring to

naturally occurring CaF_2, not to NaF or SiF which would be added for fluoridation purposes.

TWO PPM

The MCL for fluoride is 4.0 ppm. The MCLG for fluoride is also 4.0 ppm. However, there is a secondary maximum contaminant level SMCL of 2.0 ppm to protect against "moderate dental fluorosis", which the EPA now declares to be a cosmetic problem only. If the level of naturally occurring CaF_2 exceeds 2.0 ppm, a water district must notify water users but is not required to remediate.

The authors of the 2006 NRC Report said on page 352:

> The prevalence of severe enamel fluorosis is very low (near zero) at fluoride concentrations below 2 mg/L. However, from a cosmetic standpoint, the SMCL does not completely prevent the occurrence of moderate enamel fluorosis. EPA has indicated that the SMCL was intended to reduce the severity and occurrence of the condition to 15% or less of the exposed population.

In saying this, NRC is talking about naturally occurring CaF_2. Although CaF_2 is less toxic than NaF and SiFs, at 2.00 ppm there is a risk of moderate fluorosis in 15% of the population. People in India and China drink water naturally fluoridated with CaF_2 at 2.0 ppm, and if they consume a lot of calcium and other minerals, they do not suffer serious problems. However, those drinking higher levels all their lives develop fluorosis and bone abnormalities and sometimes are stooped over and have twisted spines.

ZERO PPM MCLG

The MCLG for fluoride should be zero because each MCLG should be set at the "level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety."

The MCLG is not a legally enforceable rule, but it is important because the MCL must be set as closely to the MCLG as possible as set forth in § 300g–1 of the SDWA, and must take into consideration the "effects … on … infants, children, pregnant women, the elderly, individuals with a history of serious illness, or … likely to be at greater risk of adverse health effects due to exposure ….

Because there is already such a mountain of evidence that fluoride, particularly artificial fluorides such as NaF and SiFs are harmful, the MCLG for artificial fluorides should be zero. The MCLG for artificial fluorides should likewise be zero

because no artificial fluorides occur in nature, and none should be added. However, there is unnaturally occurring artificial fluoride in rivers, for example in the Colorado, where cities are allowed to dump their sewage into the Colorado, to be drawn in by water districts downstream. Fluoride is not the only contaminant being drawn in. Of course, the EPA should ban such dumping.

The MCLG for CaF_2, naturally occurring calcium fluoride, likewise should be zero. However, the MCL could be higher, perhaps even up to .5 ppm, because CaF_2 brings along its own calcium and can be tolerated better by pipes and bodies. Such an MCLG would mean that naturally occurring calcium fluoride in excess of .5 ppm should be removed. Note that the level of calcium and other minerals can vary even when there is substantial CaF_2 in drinking water. More minerals raises pH and reduces the harm that naturally occurring CaF_2 does. The issue is at what levels naturally occurring CaF_2 should be tolerated, not how much artificial fluoride can be added. No fluoride of any kind should be added.

MCL VERSUS MCLG

The Safe Drinking Water Act starts with the MCLG. The MCL is derived from the MCLG and should be as close to the MCLG as is feasible both financially and technologically.

> § 300g–1. National drinking water regulations
>
> The Administrator shall … publish a maximum contaminant level goal and promulgate a national primary drinking water regulation for a contaminant … if the Administrator determines that … the contaminant may have an adverse effect on the health of persons … .
>
> Maximum contaminant levels.— Except as provided in paragraphs (5) and (6), each national primary drinking water regulation for a contaminant for which a maximum contaminant level goal is established under this subsection shall specify a maximum contaminant level for such contaminant which is as close to the maximum contaminant level goal as is feasible.
>
> Each maximum contaminant level goal established under this subsection shall be set at the level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.

The MCL is the legal limit. If the MCL is exceeded, the contaminant must be removed.

FDA

Fluoride mixed with water at 1.0 ppm or at the new proposed .7 ppm maximum meets federal definitions of the terms "drug" and "medication." As mentioned above, the Food, Drug, and Cosmetics Act (FDCA) defines a drug as an article

> … intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animal. 21 U.S.C. 321 (g)(1)(B)

The addition of fluoride to drinking water produces a fluoride-water mixture which also meets the definition of a drug. The municipality is the final producer. Before fluoridating, a municipality should apply to the FDA for a license. Municipalities were fluoridating before the SDWA went into effect, so the FDA never asserted authority over municipalities which were already fluoridating and by default never asserted authority over new fluoridations.

The FDA has allegedly stated that it will never approve the addition of fluoride to drinking water; I cannot find this statement in writing. The FDA has the power to approve fluoridated drugs, as it does with toothpaste, although it does not approve toothpaste to be swallowed, and it also has the power to order municipalities to stop fluoridating – on the grounds that they are prescribing a drug without first having it approved. However, the FDA appears to lack the courage to take such action.

The closest the FDA gets to acting on fluoride is allowing fluoride to be added to bottled water, provided that if fluoride is added it is labeled as fluoridated. Some twenty companies sell bottled water with fluoride added. The FDA also allows bottled water to be made with city tap water that is artificially fluoridated, and such water is not required to be labeled as fluoridated. The CDC sums it up:

> The FDA does not require bottled water manufacturers to list the fluoride content on the label, but it does require that fluoride additives be listed. In 2006, the FDA approved labeling with the statement, "Drinking fluoridated water may reduce the risk of tooth decay," if the bottled water contains from 0.6 mg/L to 1.0 mg/L.

It would be best if bottled water were never fluoridated. But if fluoridated bottled is labeled as such, I would be satisfied, and that is because people would know what they are drinking and would have a choice to drink it or not. With tap water, a person has no choice.

Organic fruit must be grown without fluoride, but reconstituted organic fruit juice can be reconstituted with fluoridated water and without disclosure on the label that it is fluoridated. Labels on reconstituted juices should disclose fluoride levels.

There is no regulation requiring that reconstituted juices be labeled with a disclosure that fluoridated water was or was not used, even if the product claims to be organic.

EPA AND FDA – ILEGAL TREATY

The Public Health Service was originally a branch of the military. In 1944 it was placed under Health, Education, and Welfare, which later was renamed Health and Human Services, HHS. Since 1945 when fluoridation began in New York state and Michigan, the Public Health Service supported fluoridation.

The EPA was established in 1970, and the SDWA, administered by the EPA, was enacted in 1974. The SDWA states:

> No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water.

Perhaps the legislators who voted for the SDWA expected this prohibition to be relied on to ban fluoridation. However, the new EPA took no such action. Nor did FDA, which it could have done so under its inherent power over drugs, medication, food, and beverages. Perhaps the Public Health Service forbad FDA from taking such action.

In 1979 the FDA cut a deal with the EPA and assign to EPA all of FDA's jurisdiction over drinking water fluoridation. FDA and the EPA entered into an illegal memorandum agreement in which the FDA assigned to the EPA and the EPA assumed all jurisdiction over drinking water fluoridation – except for fluoride in foods and beverages.

I say the transfer was illegal because one agency cannot deed away its jurisdiction to another agency. To do so would in effect be to change the law. Only Congress can change the law.

The full title of the document is: MOU 225-79-2001 - Memorandum of Understanding Between the EPA and the FDA. This Memorandum included these provisions:

> [T]he possibility of overlapping jurisdiction between EPA and FDA with respect to control of "drinking water additives" has been the subject of

> Congressional as well as public concern. … [T]he authority to control the use and application of direct and indirect additives to and substances in drinking water should be vested in a single regulatory agency to avoid duplicative and inconsistent regulation. … [The] EPA has been mandated by Congress under the Safe Drinking Water Act (SDWA), as amended, to assure that the public is provided with safe drinking water. … [The] FDA has been mandated by Congress under the Federal Food, Drug, and Cosmetic Act (FFDCA), as amended, to protect the public from, inter alia, the adulteration of food by food additives and poisonous and deleterious substances. … [The] EPA will have responsibility for direct and indirect additives to and other substances in drinking water under the SDWA … and [the] FDA will have responsibility for water, and substances in water, used in food and for food processing and responsibility for bottled drinking water under the FFDCA. … In the past, FDA has considered drinking water to be a food under Section 201(f). However, both parties have determined that the passage of the SDWA in 1974 implicitly repealed FDA's authority under the FFDCA over water used for drinking water purposes. Under the express provisions of Section 410 of the FFDCA, FDA retains authority over bottled drinking water. Furthermore, all water used in food remains a food and subject to the provisions of the FFDCA. Water used for food processing is subject to applicable provisions of FFDCA. Moreover, all substances in water used in food are added substances subject to the provisions of the FFDCA, but no substances added to a public drinking water system before the water enters a food processing establishment will be considered a food additive. … The expressed intent of the [SWDA] was to give EPA exclusive control over the safety of public water supplies. … EPA's responsibilities are … [t]o establish appropriate regulations, and to take appropriate measures, under the SDWA …, to control direct additives to drinking water (which encompass any substances purposely added to the water), and indirect additives (which encompass any substance which might leach …). FDA's responsibilities are [t]o take appropriate regulatory action under the authority of the FFDCA to control bottled drinking water and water, and substances in water, used in food and for food processing; [t]o provide assistance to EPA to facilitate the transition of responsibilities, including: … [t]o review existing FDA approvals in order to identify their applicability to additives in drinking water…; [t]o provide a senior toxicologist to help EPA devise new procedures and protocols to be used in formulating advice on direct and indirect additives to drinking water. … EPA's responsibilities are as follows: … [t]o establish appropriate regulations, and to take appropriate measures, under the SDWA … to control direct additives to drinking water (which encompass any substances purposely added to the water), and indirect additives (which encompass any substance which might leach …).

Note that "fluoride" and "fluoridation" are not mentioned in the memorandum. The term used throughout is "drinking water additives".

Note that the agencies agreed that the FDA would

> … control bottled drinking water and water, and substances in water, used in food and for food processing.…

Note that the EPA would

> "… take appropriate measures, under the SDWA … to control direct additives to drinking water (which encompass *any substances purposely added to the water*).

I am convinced that the FDA intended to wash its hands of drinking water fluoridation entirely, although some of my colleagues believe that FDA intended to retain its rights over fluoride in drinking water intended to be used as a drug.

Perhaps FDA's assignment of jurisdiction over fluoridation to EPA was not malevolent. Perhaps FDA believed that EPA would use its authority to ban drinking water fluoridation, which was perhaps something that the FDA had not been able to do, perhaps because the Public Health Service, which is under HHS, was a supporter of fluoridation from the beginning.

Perhaps FDA was pulling a fast one on HHS administrators who would not allow FDA to ban water fluoridation; perhaps FDA was thinking that EPA would do what FDA had not been allowed to do. However, EPA turned out to be just as much a cheerleader for fluoridation as the Public Health Service and CDC. Did FDA know, when it assigned its jurisdiction to EPA, that EPA would not exercise its power to ban drinking water fluoridation? Congress should convene an inquiry and look into such questions.

NSF – NATIONAL SANITATION FOUNDATION

The EPA gained alleged jurisdiction to fluoridate drinking water by treaty with the FDA, but it was still limited by the law as to what it could do with that jurisdiction. The SDWA forbade the EPA or any federal agency from requiring the addition of fluoride to drinking water.

So in the 1980s, the Reagan years when privatization was the solution to every problem, the EPA, headed by chemical company friends, transferred jurisdiction it could not exercise over fluoridation to a private trade group, NSF, the National

Sanitation Foundation, and directed and financed its fluoridation promotion program.

NSF proceeded to recommend the addition of fluoride to drinking water and to certify it safe to fluoridate. Some 43 states allow fluoridation to proceed only if NSF approved fluoridation materials are used. Washington law, for example, allows fluoridation only if it is done using NSF 60 approved fluoride. See WAC 246-290-220.

The EPA helps finance the publication of NSF 60 and gives it EPA's "imprimatur" on page iii of NSF/ANSI 60-2009, although EPA does hedge its bets with additional contradictory language:

> This documents has been reviewed by the Office of Drinking Water, Environmental Protection Agency, and approved for publication. Approval does not signify that the contents necessarily reflect the views and polices of USEPA ….
>
> Partial funding by USEPA for the development and implementation of NSF Standard 60 (USEPA Cooperative Agreement #CR-812144) and participation of USEPA representatives in the standards development or implementation activities do not constitute USEPA's endorsement of NSF, NSF's policies, or the Standard.

So we must inquire into who or what the NSF is. According to a July 7, 2000, letter from Stan Hazan, then NSF general manager, to Rep. Ken Calvert:

> NSF involvement in the evaluation of drinking water chemicals, including fluoride-based chemicals, began in 1985, when the U.S. EPA granted an NSF-led consortium of stakeholders the responsibility to develop consensus, health-based, quality specifications for drinking water treatment chemicals and drinking water system components. [emphasis added]

Municipalities rely on the NSF label. NSF puts its "NSF 60" stamp of approval on the fluoride tanker trucks that dump their loads every four days at fluoridation facilities up in the hills to the east of Seattle.

However, because of limitations built into the SDWA, the EPA can only require that excess fluoride be removed from drinking water. It cannot require and should not authorize fluoride to be added to drinking water. Likewise, the NSF cannot require fluoride to be added to drinking water, but it does certify fluoridation chemicals as safe to add to drinking water, something on the FDA should be

doing. NSF enables municipalities to require fluoridation. The boys in the back room at the EPA enable NSF to enable municipalities to fluoridate.

NSF claims it does toxicological studies or receives such studies from fluoride suppliers. The February 2008 NSF Fact Sheet on Fluoridation Chemicals says:

> The NSF Joint Committee … consists of … product manufacturing representatives. … Standard 60 … requires a toxicology review to determine that the product is safe at its maximum use level and to evaluate potential contaminations in the product. … A toxicology evaluation of test results is required to determine if any contaminant concentrations have the potential to cause adverse human health effects. … NSF also requires annual testing and toxicological evaluation …. The NSF standard requires … toxicological evaluation.

It is easy to prove something does exist but hard to prove it does not exist. Nevertheless, there is substantial evidence that NSF has no toxicological studies. First, there are no toxicological studies of fluoride on the extensive NSF web site at www.NSF.org. Blake Stark is the person at NSF International now in charge of fielding questions regarding Standard 60. Call Blake at 734-769-5480 or email him at Stark@NSF.org and ask him if there are any toxicological studies. He is an honest guy. He will tell you there are none. See an example of a Blake Stark response to a request for toxicological studies, labeled as Appendix D-67. See also a transcript of a California deposition in which another NSF official, Stan Hazen, admitted that suppliers are not required to deliver toxicological studies.

NSF 60

Most water districts do not even have a copy of NSF 60. The EPA finances and approves the publication of NSF 60, however, it is priced so high, at $325, that few buy it.

I have read NSF 60, and I can tell you that it is a convoluted web of contradictions, circular references, and exceptions that end up saying nothing. It mentions fluoride only in a few tables and does not specifically deal with the health issues or toxicological issues relating to fluoride per se.

Although the NSF 60 book is copyrighted, I believe the copyright to be invalid: The book is financed by the federal government, and government documents are not subject to copyright. Nevertheless, I have refrained from reproducing the entire book. Instead, I have excerpted 13 pages from this book of approximately 300 pages, certainly a reasonable number of pages to exhibit under the fair use

doctrine, especially when the book is a fraud and it is important to make the fraud clear.

So I ask again, who or what is the NSF? NSF is a sham regulatory agency which has usurped the role of the FDA and the EPA so as to sidestep the SDWA and the Clean Water Act.

The EPA has blessed and financed the NSF and has told the municipalities that they can rely on NSF fluoride certification. The CDC sends out aggressive organizers who walk municipal officials through the fluoridation steps. Municipalities rely on recommendations from CDC, EPA, and NSF that fluoride is safe and effective. The CDC and the EPA use NSF as a tool by which they effectively recommend to, authorize, and enable municipalities to issue the final requirement.

Municipalities are urged on by a well-financed faction of dentists who have not done their scientific homework and who support fluoridation unquestioningly. Pro-fluoride dentists probably still represent more than half of all dentists. The number of dentists who oppose fluoridation continues to grow. Pro-fluoride dentists are urged on by their dental schools, which in turn are urged on by giant chemical corporations which make big donations to the dental schools, and which have left-over fluoride to unload. Likewise, the sugar industry donating heavily to academics who supported fluoridation, seeing fluoride as the silver bullet which would allow us to keep eating a lot of sugar while avoiding tooth decay. Sugar interests pressured EPA not to declare fluoride to be a possible carcinogen in 1990. Connett, The Case Against Fluoride, pp. 263-265.

FDA AUTHORITY USURPED BY NSF

NSF applies its NSF 60 seal of approval on NaF and SiFs.
Fluoride is added to water allegedly to prevent tooth decay. The Food, Drug, and Cosmetics Act (FDCA) defines a drug as an article

> … intended for use in the diagnosis, cure, mitigation, treatment, or prevention of disease in man or other animal. 21 U.S.C. 321 (g)(1)(B)

Fluoride mixed with water at 1.0 ppm or .7 ppm meets federal definitions of the terms “drug” and “medication.” Fluoride is added for “preventive health care purposes”, and therefore fluoride is a drug. The mixture of fluoride with water is likewise a drug.

Only the FDA has authority to approve drugs. NSF has usurped FDA’s authority, and the FDA has allowed it to happen.

TWO REASONS WHY WE FLUORIDATE

The EPA admits that there are two reasons why we fluoridate, first to prevent cavities but also as a way to offload toxic waste. It is illegal to dump waste fluoride into oceans and rivers but it is legal do so indirectly by going through public water systems first and then into oceans and rivers.

No federal agency has ever approved water fluoridation. The CDC, which is under the HHS, praises fluoridation, but it has no jurisdiction to approve or require it. Nevertheless, HHS and CDC are proposing to make a recommendation that fluoridation is effective and safe at the .7 ppm level.

HHS AND CDC

Although HHS makes request for comment, it is the Dental Division of the CDC that is handling matters. CDC is an agency under HHS, formerly known as the Public Health Service, which supported fluoridation back in the 1940s, long before the EPA was established in 1970.

HHS is making this proposal for comment, along with the EPA. HHS was formerly known as the Public Health Service, and as the PHS was formerly part of the Department of Defense.

The CDC has no legal authority to approve, require, or regulate fluoridation, although it spends millions of dollars encouraging states and municipalities to fluoridate and sending in organizers to assist states and municipalities in implementing fluoridation.

The FDA has jurisdiction to ban fluoridation but fails to act.

HHS and EPA are proposing to reduce fluoridation levels to .7 ppm. This proposal comes as a belated response to the 2006 National Science Council report on fluoridation. As such, it is an inadequate response. It ignores the effect of fluoride on bones, kidneys, pineal, thyroid, brain, and many other organs and bodily functions. It focuses only on teeth, as if the fluoride we drink magically goes only to the teeth. HHS included references to some 40 to 50 journal articles. Most of them pertained to teeth and fluorosis and said little about the effect of fluoride on other organs.

The HHS proposal completely ignores the latest research regarding serious increases in lead levels as a result of fluoridation. I have written a separate letter specifically dealing with fluoride and lead. HHS's proposal is bad science.

In the process of writing the first draft of this letter, I called HHS and was transferred to CDC, which is managing the comment process. Note that comments are not sent to HHS but to CDC at CWFcomments@cdc.gov. The only person I was able to get through to at CDC was Kip Dujon, whose title is "chief fluoridation engineer". By what authority does the CDC engage the services of a "chief fluoridation engineer"? None I can find. It reminds me of the covert Contra War that Oliver North ran against Nicaragua out of the basement of the White House.

The CDC has been the leader of the Fluoride-Gate scandal and has been charged with unethical behavior.

HHS and the Oral Health Division of the CDC should make no recommendation that communities fluoridate at .7 ppm or at any level. It should get out of the fluoride cheerleading business. It should advise people that no one needs to consume or apply topically any amount of fluoride whatsoever. Fluoride is of no use to the human body.

TYPES OF FLUORIDE

Because fluorine forms a compound with or dissolves pretty much every other element or compound, there are a multitude of forms of fluoride.

Nevertheless, when you read HHS, CDC, or EPA publications about "fluoride", you have no idea which type of fluoride is being referred to or whether the use of the term "fluoride" would apply equally to all forms.

When fluoridation began in the 1940s water districts could fluoridate with sodium fluoride, NaF, but they had an alternative to use naturally occurring CaF_2, also known as fluorite or fluorspar.

NaF completely replaced CaF_2. Why? World reserves of CaF_2 are large and readily available in many areas on all continents. CaF_2 deposits are relatively pure. If we are to fluoridate, CaF_2 would be the fluoride to use – because it is rich in calcium and thus will bind with and seal in the lead in brass pipes.

Why CaF_2 was replaced by NaF and eventually by SiFs is a story which needs to be researched. I would speculate that NaF and SiFs were substituted because aluminum, steel, uranium, and fertilizer producers had surplus NaF and SiFs which they wanted to sell or dump.

The objection made to CaF_2 as a fluoridation material is that it does not ionize as well as NaF and SiF. This is true, however, CaF_2 will ionize up to around 8 ppm

before it precipitates, so if you are fluoridating at 1 ppm, CaF_2 will stay dissolved and will not precipitate.

To kill yourself with CaF_2, you would have to eat a half pound of it, which is why CaF_2 is not even classified as a poison. Conversely, as little as 7 grams of NaF or SiF would finish off the average size man nicely.

The lethal dose in experimental animals for CaF_2 is 3,000 to 5,000 ppm administered in a single dose, but for NaF or SiF it is 125 ppm.

All early fluoridation tests on humans and animals were done and have almost always been done using so-called pharmaceutical grade sodium fluoride.

Actually there is no such thing as pharmaceutical grade NaF, although the term is frequently used. A chemical can be called pharmaceutical grade only when it is approved for human consumption, and NaF has never been approved for human ingestion by the FDA. It is thus not an official drug or pharmaceutical, even though it is being used illegally as though it were. Nevertheless, all grades of sodium fluoride are relatively pure compared with SiFs. Around eight percent of the fluoridated population is fluoridated with NaF.

Likewise, no federal or state agency tests or approves the silicofluoride which is currently used by Seattle and by 92% of the water districts in the country which practice water fluoridation.

Although neither NaF nor SiF fluoridation material is safe for internal consumption, there are clear indications that silicofluorides are worse than sodium fluoride. Like NaF, there is no such thing as pharmaceutical grade SiF. The SiF used to fluoridate drinking water is industrial waste.

DIFFERENT MCLS AND MCLGS FOR DIFFERENT FLUORIDES

Because CaF_2, NaF, and SiF have different effects on the human body and behave differently in the pipes, there should be different MCLs and MCLGs for all three.

Blunder number one by HHS and EPA in this latest request for comment is their lax use of the word “fluoride”. HHS and EPA use the words “fluoride” and “fluoridation” without ever specifying what kind of fluoride they are referring to.

Sloppy work!

When the Safe Drinking Water Act gives EPA the power to set an MCL, maximum contaminant level for fluoride, the MCL is the amount of naturally occurring CaF_2

which is allowed to remain in drinking water. Any amount of CaF_2 above 4 ppm must be removed. The 4 ppm MCL is not an authorization to add any amount of CaF_2 or any other kind of fluoride.

The MCLG for CaF_2 should be zero, which would mean that none should be added. A certain amount of naturally occurring CaF_2 can be tolerated. The MCL need not be zero. Whether a flat MCL can be set is a difficult question. It depends on how much fluoride people in a district are getting from their food and beverages as well as how much naturally occurring calcium and other minerals are present in the water source.

The MCLG for NaF and SiF should be zero, which again would mean that none should be added. Should the MCL for NaF and SiF be higher than zero? No NaF and SiF occur naturally, so there should be none in drinking water sources. However, there might be some non-naturally occurring NaF and SiF in the environment if, for example, there is a steel or aluminum mill upstream from the water district or if, as on the Colorado River, towns dump their sewage, which may contain NaF or SiF, into the river. When towns downstream use this water as their source of drinking water, there will be non-naturally occurring NaF or SiF in the water, and so an MCL for NaF and SiF should be set, preferably at or close to zero.

There should also be separate MCLGs and MCLs for various combinations of contaminants, due to the potential for synergistic effects of various contaminants which might occur together in drinking water, including fluorides, lead, arsenic, mercury, uranium, chlorine, chloramine, ammonia, atrazine, trihalomethanes, and other contaminants.

The failure of the EPA to create separate MCLs and MCLGs for different combinations of contaminants working synergistically is a major blunder.

LEAD AND ARSENIC

SiFs contain lead in small amounts, up to .6 ppb, according to NSF, although lead has been measured in water in Seattle school buildings at up to 1,600 ppb.

Likewise, SiFs contain arsenic in small amounts, up to .6 ppb, again according to NSF.

Lead and arsenic are so nasty that we should not consume even the most minute amounts of them. But if you drink tap water fluoridated with fluorosilicates, you can be drinking around .6 ppb lead and .6 ppb arsenic. And lead levels can be much higher, depending on several factors. Bear in mind that SiF scrubber liquor is a mixture of hundreds of different elements and compounds, many of which are not dissolved and which precipitate and sink to the bottom. Lead sinks to the

bottom, so the amount of lead in a shipment of SiF can vary depending on how well the factory tank is stirred, from how deeply the slurry liquor is drawn as the shipping tankers are filled, and how well the slurry liquor in the water district storage tanks are stirred.

SiFs also are good at dissolving lead, and there is lead in virtually all brass pipes and fittings, which is why lead levels can be very high in fluoridated water, as I discuss in a separate letter devoted to lead, arsenic, and fluoride. Go to http://fluoride-class-action.com/hhs and and click on Comment Regarding Lead, Arsenic, and Water Fluoridation.

There is much more to say about SiFs and their relation to lead and also to arsenic, so I have put it in a separate letter devoted just to lead and arsenic.

The EPA has a direct duty under the Safe Water Act to check on and do something about lead and arsenic. The EPA is acting in a negligent and criminal way by ignoring the lead in our drinking water.

FLUORIDE – THE JOURNAL

Another fundamental error that HHS and EPA make is that they have failed to study the trove of insightful articles about fluoride that can be found in the journal Fluoride. Those who are part of the pro-fluoride "church" condemn the journal Fluoride by referring to it as "junk science". When you ask them if they have ever read it, they usually say no.

The Fluoride web site at http://fluorideresearch.org is not fancy, but it provides easy access to scholarly articles on fluoridation going back to 1968.

The pro-fluoride "church", including the pro-fluoride agencies, is so powerful that it has been able to pressure academics to boycott the journal Fluoride, never to cite to any article from the journal Fluoride. They have even succeeded in convincing Medline not to index Fluoride.

All articles in the journal Fluoride are peer reviewed. Fluoride is the only US journal which will publish articles which question the safety or effectiveness of fluoridation. However, Fluoride also publishes articles which are supportive of fluoridation. It is not one sided. Many articles in the journal Fluoride come from India and China where naturally occurring fluoride is a serious problem and where much research is done on all aspects of fluoridation. The fact that HHS and EPA have not kept up with the research being reported in Fluoride Journal means they are by definition not properly informed.

Is the journal Fluoride junk science? The NRC thinks it is not. The authors of the 2006 NRC Report cites articles from Fluoride are around 50 times.

I would say that is convincing evidence of professional bigotry. HHS and EPA are part of the pro-fluoride "church" which tenaciously and irrationally defends the fluoride theological myth that keeps the cash coming in to the corporations and the campaign contributions coming in to the politicians.

The chemical companies make large donations to dental and medical colleges, which in turn instruct their members: 1) push fluoridation, 2) form committees and campaign for pro-fluoride politicians and against anti-fluoride politicians, 3) don't bother trying to understand fluoride science, 4) do not participate in debates with people who oppose fluoridation, 5) refuse to publish articles which question fluoridation.

TOPICAL THEORIES

Pro-fluoridationists formerly believed that fluoride strengthens teeth from the inside, that the fluoride we drink and eat makes a beeline to the enamel of the teeth. They still seem to believe that fluoride does not cause the same fluorosis to every bone in the body that it causes to teeth.

Pro-fluoridationists now take the fallback position that fluoride protects teeth through topical application. This might be a credible argument because fluoridated toothpaste is 1,500 ppm sodium fluoride or monofluorophosphate. But brushing with fluoridated toothpaste is not good enough. They still want us to drink fluoride, because our saliva will contain fluoride, which will kill bacteria.

This is a faulty theory. The level of fluoride in the saliva of someone who drinks fluoridated water is only an average of .02 ppm (with a range of .0019 ppm to .144 ppm), and at this low concentration fluoride would have little or no effect. 2006 NRC Report, p. 58-63.

However, it has become clear that topical application in any amount, whether .02 ppm or 1,500 ppm is not effective in fighting tooth decay. See Dr. Richard Sauerheber's April 10, 2011 letter to the FDA on this subject. Whether swallowed or applied topically via toothpaste, varnishes, or fluoridated saliva, fluoride does not reduce tooth decay.

Dr. Featherstone, who believes that topical application of fluoride is effective in reducing decay, admits that antibacterial mouthwash is highly effective in preventing caries. J American Dental Association, Vol. 131, July 2000, p. 890.

ENVIRONMENTALLY UNSOUND

The Federal Water Pollution Control Act of 1972, commonly known as the Clean Water Act, states its guiding objective as follows:

> SEC. 101. (a) The objective of this Act is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. In order to achieve this objective it is hereby declared that, consistent with the provisions of this Act— (1) it is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985: … (3) it is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited…."

The dumping of toxic waste SiFs into drinking water and from there into rivers and seas is inconsistent with the Clean Water Act.

The SiFs that Seattle and Everett buy, along with most other high capacity water districts, are produced in super-phosphate fertilizer plants, mainly in Florida and Louisiana, but also in China and other countries.

Phosphate rock and sulfuric acid are cooked together. The fumes go up the stack. Before 1979 the smoke escaped to poison the surrounding countryside, killing plants, animals, and people. Today that smoke is captured in wet scrubbers built into the smokestacks. The liquid which captures the smoke is called "scrubber liquor." Unfiltered and unrefined, scrubber liquor is pumped into tanker trucks and delivered to the headwaters of our rivers where it is discharged into our drinking water.

Toxic material which is illegal to discharge into air is captured in scrubber liquor, which is illegal to discharge into lakes, rivers, or oceans, but which can be discharged into our drinking water. It is absurd when you think about it.

Nothing good can be said about the super-phosphate fertilizer industry. Only 30 percent of super-phosphate fertilizer applied to corn, soy, wheat, or cotton is absorbed by plants. The remaining 70 percent builds up in the soil and stunts microbial life. Sufficient phosphate is present in most soils, particularly in the US; pH only need be adjusted to between 5.5 and 7.0 to make it available. If soil is deficient in phosphorus, the way to add it is the way organic farmers add it: to mix raw phosphate rock with animal or vegetable manure and compost it. Organic phosphate is long lasting and keeps soil healthy for microbes.

Super-phosphate fertilizer plants are surrounded by miles of toxic waste "gypsum stacks." Gypsum stacks can be a hundred feet high and the size of football fields.

They encircle evaporation ponds into which contain vast quantities of scrubber liquor are dumped. Scrubber liquor dries and hardens into white pebbles, which are dredged out of the ponds bigger than football fields into the surrounding gypsum stacks.

Unfortunately, a sink hole opened up under a gypsum pile in Florida, and thousands of tons of untreated scrubber liquor fell into the Florida aquifer, permanently polluting the river of water that runs under the state. See photos of gypsum stacks. See Phosphate Fertilizer Industry: An Environmental Overview, For a satellite's eye view of wreckage in another area go to http://maps.google.com and do a search for "Purvis Still White Springs Florida." Click on "satellite" view.

Further clarifying the enormity of this tragedy is the simple fact that the superphosphate fertilizer industry is unnecessary. Its product is designed for growing corn, wheat, and cotton as fast as possible. The problem with superphosphate fertilizer is that it builds up in the soil and deadens microbial life. Organic farmers use ordinary ground up rock phosphate which they compost in animal or plant manure. This process takes more time and is more work, but the end result is healthier soil and healthier plants.

These SiFs are unusable in industry because the silicon is hard to remove. The pebbles cannot be used to gravel roads because they are radioactive. If the companies which build these giant piles were required to clean them up or restore the land, the companies would immediately be bankrupt. Such a task would be impossible. These are permanent sacrifice zones. The super-phosphate industry is unnecessary and destructive.

It is illegal to dump fluoride into rivers or oceans, but it is can be trickled into our drinking water at 1.0 ppm. Rebecca Hanmer, then Deputy EPA Assistant Administrator for Water, admitted in 1983 that toxic waste disposal was one of the reasons for fluoridating. This enables chemical companies to avoid the cost of disposing of fluorosilicates and bringing in income at the same time. Adding fluoride to drinking water is a way to dispose of an estimated 200,000 tons of toxic waste per year.

The policy of HHS and EPA seems to be to accommodate chemical industries who make profit by producing and selling chemicals and who do not want to stop producing and selling them – even though they are unnecessary and actually harmful. HHS and EPA should address this concern in their final decision.

IGNORING CHILDREN

Several of my colleagues have commented on how bad fluoride is for infants and children, how infants drink 2.5 times as much water than adults on a per-pound basis, how children should be fed formula and food mixed and made with non-fluoridated water, about the inconvenience and cost of hauling water home, especially for poor people, of the complexities of finding a filter that is affordable and will remove fluoride reliably. I will not repeat their comments. See Dr. Susheela's article dealing with these issues.

I would add that HHS and EPA have turned a cold shoulder to infants and children, especially to those who are poor. It is too much to expect poor parents to figure out on their own how to buy a distiller or reverse osmosis filter.

We drink, cook, and wash our vegetables only with water from a deep artesian well. We own a distiller, but we do not use it because it is cheaper to haul water than to burn electricity. We will save the distiller for use if we move someday to a place where there is no well close by. We are a family of four and we haul home 24 gallons or more each week from the well. Explain to me how a poor person with no car is going to be able to afford and haul that much water.

I resent having to take showers in fluoridated water. I resent having to wash my clothes in fluoridated water. The water evaporates from the clothes, leaving concentrated fluoride, so as I perspire during the day, I constantly have fluoride on my skin.

For HHS and EPA to ignore the need of infants and children and practically force them to consume fluoride, to leave it up to parents to figure out how to afford and haul enough water home or distill or filter enough water, and to decide which water purification method will be effective – ignoring all these issues displays a callous attitude towards the most vulnerable.

It is possible that the first fluoride mass toxic tort "class" action will be one against water districts, NSF, state boards of health, and on up the line for mild, moderate, and severe fluorosis. A person with teeth damaged by fluoride can easily spend $50,000 on veneers, and they must be redone ever ten years or so. It would seem to be an easy case to prove in a court of law. Everyone from EPA to CDC to NSF to Colgate to Mosaic have to know that fluoride causes 8.6% of us to suffer from mild fluorosis and 3.6% of us to suffer from moderate and severe fluorosis. Yet they continue to authorize or encourage or require fluoridation. The suit will be for negligence, failure to warn, wrongful injury, humiliation, pain and suffering, and cost of veneers. It will be a suit in federal court for money damages and an injunction.

IGNORING THOSE WITH KIDNEY DISEASE

Fluoride affects kidneys in many and perverse ways, as Carole Clinch outlines.

The kidney is the main organ for excretion of fluoride. However, fluoride gradually builds up in the kidneys and at the same time diminishes the kidneys' ability to excrete fluoride. At some point the slow downward drift accelerates into a fast spiral. The patient has to go on dialysis. In the end stage patients spend 4.5 hour per clinic session every other day hooked to expensive machines which filter their blood.

Clinic operators must eliminate all fluoride from dialysis machines to avoid adding fluoride to the kidney patient's blood, as this can be fatal.

Dr. George Waldbott said this:

> Case Study: "In my medical practice I have encountered two cases in which fluoridated water interfered with kidney function. One of these, Miss G.L., 27 years old, had been under my care from July 1966 to September 1969 for allergic nasal and sinus disease. She had a congenital cystic kidney necessitating consultation with a urologist. As shown by its inability to excrete indigo carmine, a dye employed as an indicator of kidney function, the left kidney was not working and was slated for removal. This patient also reported having pains and numbness in arms and legs, spasticity of the bowels, ulcers in the mouth, headaches, and a progressive general disability - symptoms of possible intolerance to fluoride - for about 15 years. Her water supply (Highland Park, Michigan) had been fluoridated since September 1952. On February 1, 1967, I instructed her to avoid fluoridated water for drinking and cooking. Within a few weeks all the above-mentioned symptoms disappeared, and another kidney dye test on June 12, 1967, astonishingly revealed that the left kidney had begun to function again! A follow-up 5 years later revealed that the patient had remained in good health as long as she refrained from drinking fluoridated water. Waldbott GL, et al. (1978). Fluoridation: The Great Dilemma. Coronado Press, Inc., Lawrence, Kansas. pp. 155-156.

In 2008 the National Kidney Foundation retracted its endorsement of fluoride in writing, although it did so in the most bashful way possible, perhaps because the NKF gets its funding from the CDC. The NKF wrote that those with chronic kidney disease should be notified of the potential risk from exposure to fluorides. However, NKF chose to send notice only by posting the news quietly on its website, hidden on a back page and with no link to it on the front page. NKF said more research should be done. No more has been heard from NKF on the subject.

I called the local branch of Northwest Kidney Center and talked with the nurse/manager. See www.nwkidney.org. They start with our fluoridated tap water and filter out the fluoride to make their dialysis water. They use a heavy duty commercial reverse osmosis filter. They make recommendations on their web site regarding a healthy diet and recipes. However, they do not say one word about drinking or not drinking fluoridated water. Northwest Kidney's web site has no link to the National Kidney Foundation retraction of endorsement. The only mention of fluoride is the advice to "protect your teeth by using a fluoride toothpaste". I talked with several people who work for Northwest Kidney Center, and none was aware that there was any problem with kidney patients drinking fluoridated water.

This is a typical dialysis clinic policy. It tells me that the National Kidney Foundation has committed a great wrong by not making a concerted effort to get the word out to all kidney dialysis professionals that they should advise their patients and members not to drink fluoridated water.

It tells me also that the EPA, FDA, and CDC have committed an even greater wrong by not urging the NKF to give overt notice and by not themselves giving such notice. It is no secret that fluoride speeds the downward death spiral of the kidneys. The agencies are guilty of failure to warn of a known hazard as required under the Safe Drinking Water Act. When the lawsuits come, they will all be named.

This is especially true in light of the fact that the NRC has advised EPA to look into the issue. See 2006 NRC Report, page 6-9:

> [A] potentially susceptible subpopulation comprises individuals with renal impairments who retain more fluoride than healthy people do.
>
> Information is particularly needed on fluoride plasma and bone concentrations in people with small-to-moderate changes in renal function as well as in those with serious renal deficiency.

It is possible that the first fluoride mass toxic tort "class" action will be one against kidney centers, the NKF, water districts, NSF, state boards of health, and on up the line. It would seem to be easy to prove in a court of law. The suit would be for negligence, failure to warn, wrongful death, and premature death. When I stroll into a kidney center, I see patients lined up ten wide and ten deep receiving dialysis. They are "end stage" (the old term) or "chronic kidney disease" (the new term) and sure to die before their time. Current kidney patients will sue.
Also the estates of those kidney patients who died before their times will sue, claiming and proving that their father or husband died sooner than he would have

died had they received proper fluoride notice. Kidney centers, check your insurance coverage.

Failure on the part of CDC, EPA, and FDA to advise those with kidney disease to stop drinking fluoridated water indicates bad faith, recklessness, gross negligence, and failure to warn of known dangers, especially in light of the fact that the NRC advised EPA to study the connection between fluoride and kidney disease.

IGNORING MINORITIES

The SDWA provides:

> When proposing any national primary drinking water regulation that includes a maximum contaminant level, … the Administrator shall … use … an analysis of … [t]he effects of the contaminant on … subpopulations that are identified as likely to be at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

Blacks and the poor are at greater risk of fluorosis and other adverse effects of fluoridation. Civil rights leaders are pushing a Fluoride-Gate investigation. HHS and EPA have ignored the increased effect of fluorosis on minorities.

POST HOC ERGO PROPTER HOC

Fluoridation began. The number of caries declined. Therefore fluoridation causes the number of caries to decline. This is what HHS says in the Federal Register.

Recent research from Australia confirms that fluoridating does not reduce the number of caries; instead it delays eruption and development of baby teeth, and by that method fluoride reduces the number of caries. Likewise a comparison of caries rates in non-fluoridated countries with those in the United States shows that there is no difference and thus fluoridation does not reduce caries. My colleagues are submitting numerous studies to show that drinking fluoride does not reduce caries.

And remember that even if it were true that fluoridation helped improve teeth, it still would be harming other parts of the body.

EPA'S CHARGE TO NRC

The EPA twists what NRC says to imply that NRC endorses artificial water fluoridation. The EPA says in its New Fluoride Risk Assessment:

> The NRC report does not question the beneficial effects for fluoride at levels practiced for fluoridation programs.

This is a bad faith argument, because EPA told HHS not to discuss artificial water fluoridation in the 2006 NRC Report. The SDWA requires that the EPA get outside review every five years. So in 2003 EPA commissioned the NRC to conduct a very limited evaluation of fluoridation policies. The NRC explains:

> The committee was charged to review toxicologic, epidemiologic, and clinical data on fluoride—particularly data published since the NRC's previous (1993) report—and exposure data on orally ingested fluoride from drinking water and other sources. On the basis of its review, the committee was asked to evaluate independently the scientific basis of EPA's MCLG of 4 mg/L and SMCL of 2 mg/L in drinking water and the adequacy of those guidelines to protect children and others from adverse health effects. The committee was asked to consider the relative contribution of various fluoride sources (e.g., drinking water, food, dental-hygiene products) to total exposure. The committee was also asked to identify data gaps and to make recommendations for future research relevant to setting the MCLG and SMCL for fluoride. Addressing questions of artificial fluoridation, economics, risk-benefit assessment, and water-treatment technology was not part of the committee's charge. 2006 NRC 1-2. [emphasis added]

On the one hand, EPA, CDC, and HHS were endorsing continued water fluoridation. On the other hand, EPA was telling NRC not to research the subject. And on the other hand the EPA was using NRC's reduced coverage of water fluoridation to imply that the NRC was not critical of water fluoridation.

EPA did all this knowing that it had not researched the issues which NRC brought up in 1993 NRC Report. The probable explanation is that EPA does not want information on artificial water fluoridation because it would lead to the end of it.

THE SAFE DRINKING WATER ACT DOES NOT APPLY?

In its New Fluoride Risk Assessment EPA says:

> Fluoride is an inorganic ion found in drinking water because of its presence in the earth's crust, anthropogenic releases to the environment, and/or due to its addition to treated water to prevent cavities. The decision on whether to add fluoride to drinking water is made by state or local governments with

> technical support from the Department of Health and Human Services and is not governed by the Safe Drinking Water Act. [emphasis added]

The first sentence has no logical connection with the second sentence. The amazing part of the paragraph is the assertion by the EPA that "[t]he decision on whether to add fluoride to drinking water is … not governed by the Safe Drinking Water Act." This is a false statement.

It is true that the Safe Drinking Water Act prohibits the EPA or any other agency from enacting any regulation requiring that any drug be added to drinking water. Fluoride is a drug, and therefore the SDWA prohibits any agency from passing a regulation requiring that it be added.

But this is not the end of the story. Although EPA lacks the power to require that fluoride be added, it has the power to prohibit that it be added. SDFA Section 300-g (1)(b)(1)(d).

> (D) Urgent threats to public health.— The Administrator may promulgate an interim national primary drinking water regulation for a contaminant without making a determination for the contaminant under paragraph (4)(C), or completing the analysis under paragraph (3)(C), to address an urgent threat to public health as determined by the Administrator after consultation with and written response to any comments provided by the Secretary of Health and Human Services, acting through the director of the Centers for Disease Control and Prevention or the director of the National Institutes of Health. A determination for any contaminant in accordance with paragraph (4)(C) subject to an interim regulation under this subparagraph shall be issued, and a completed analysis meeting the requirements of paragraph (3)(C) shall be published, not later than 3 years after the date on which the regulation is promulgated and the regulation shall be repromulgated, or revised if appropriate, not later than 5 years after that date.

How is it that it came to pass that the EPA never exerted its power to ban fluoridation? The probable explanation is that fluoridation was already proceeding before the EPA was created and the SDWA was enacted. The Public Health Service, now the HHS, was promoting fluoridation and has never quit. In some sense it was grandfathered in. It had also been voted on by municipalities. Through excellent PR work by the chemical companies, the public had come to believe in fluoride. The EPA chose to shirk any duty to stand up against the big chemical companies and shut down their thriving business.

The purpose of SDWA was to keep the water pure not to authorize adding a contaminant.

EPA and CDC recommend fluoridation, and this recommendation in effect is a requirement because water districts believe the recommendation.

THE COLORADO

Around 2005 the EPA issued a permit to Laughlin Nevada to dump its treated sewage into the Colorado River, sewage which includes human poo, dog poo, cat poo, toothpaste spit, drugs dumped down the toilet, toxic wastes illegally dumped by businesses, perhaps mercury amalgam from dental offices, and whatever else goes down the sewer in a casino, farming, industrial town. Similar permits have been issued to other towns and factories along the Colorado. Shell Oil has a permit to dump 2,637 tons of salt per day into the Colorado! Allowable levels of salt dumping are set based on the amount currently being dumped. There are quotas also for dumping ammonia. Cities and factories dump their sewage into the Colorado and the cities downstream draw their drinking water from the Colorado. Laughlin is fluoridated, and SiF levels downstream from Laughlin run around .2 ppm.

The sewage is sterilized, however, it is rich in nutrients which promote growth of bacteria, which lowers the oxygen content of the water. The sewage fertilizes the Colorado and changes its flora and fauna. Below Laughlin, laundry detergent soap suds line the banks. The Laughlin Bay Marina and Big Bend State Park lie immediately downstream from Laughlin. Since Laughlin began dumping its sewage into the Colorado, tourist visits have dropped. Further downstream is Lake Havasu, now the home of an amoeba which can kill those who swim there. Only foolish tourists now swim in Lake Havasu.

Dr. Sauerheber asked an EPA representative how it set acceptable contaminant levels. Dr. Sauerheber reports the conversation:

> Subsequent phone calls were made to an EPA official regarding these discharges. I was told that other cities dump treated sewage into the River and the EPA cannot act punitively to one city while allowing other cities to dump sewage in this way. I asked “when pray tell would it ever be halted, when every village along the entire River dumps all they have directly in and the oxygen levels in the River become zero?”
>
> EPA: We monitored the oxygen levels and they were above the required minimum after Laughlin began the dumping.

RDS: How did you determine what minimum oxygen level remaining in the River would be allowed?

EPA: We went to the end of the River where it enters Mexico and measured the oxygen level prevailing at the time and set that as the allowed level.

RDS: That has nothing to do with the oxygen level required for aquatic species, especially fish and it should be set based on that, not a level that happened to exist at the time you became concerned.

EPA: Most River bank cities do this.

RDS: If I were to dump cyanide into the River, that after dilution remained below the EPA allowed level, would not I be arrested for the act of dumping?

EPA: No response given

RDS: When then is a city allowed to intentionally dump treated waste water into a U.S. River, as long as it is not lowering the oxygen level to a value that concerns you? Isn't the act of dumping anything that does not belong in the River sufficient grounds for you to halt it?

EPA: No response given.

The EPA goes to the delta of the Colorado just above the border with Mexico and checks the contaminant and oxygen levels there. Whatever the contaminant and oxygen levels are there become the acceptable contaminant level upriver. The Colorado has been turned into a sewer. Many cities on the Mississippi have permits to dump their sewage into the Mississippi, although Chicago and Minneapolis do not.

The EPA person explained to Dr. Sauerheber that the dumping was acceptable because the contaminant levels after dumping were less than the MCLs for those contaminants. The EPA person was relying on the SDWA MCLs in a way they were not intended to be relied on. The MCL is not a green light to dump contaminants up to the MCL level; it is a requirement that contaminants in excess of the MCL be removed – whether they are naturally occurring or man-made. The EPA and CDC use the same flawed logic when talking about fluoridation.

Northeast and upstream along the Colorado, past Lake Mead lies Moab, Utah. Across the river from Moab is the shut down Atlas uranium mine with its

mountain size mill tailing pile. The pile surrounds a tailing pond. Some 50,000 gallons of uranium polluted water seep daily from the tailings pond into the Colorado. Residents of San Diego drink Colorado River water containing an average of 3.46 pCi per liter. This is less than the EPA MCL of 20 pCi per liter and thus it is considered acceptable. The US government is considering allowing new uranium mines to be dug in the Moab area.

The point of this section about the Colorado is to show that the EPA has truly lost its way. The Federal Water Pollution Control Act of 1972, commonly known as the Clean Water Act, states its guiding objective as follows: "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. … It is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985. … It is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited…." The EPA has become an organization that grants pollution permits to any enterprise which can profit from or save money by polluting.

CONCLUSION: BAD FAITH

The EPA acted in bad faith by failing to do the research which NRC recommended it do back in the 1993 NRC Report. See 2006 NRC Report at pages 19-20. Given the fact that HHS and CDC are recommending fluoridation, they have acted in bad faith for the same reason.

The EPA acted in bad faith in telling NRC to avoid the artificial fluoridation issue while turning around and claiming that NRC had not questioned the effectiveness of artificial fluoridation.

HHS and EPA have acted in bad faith by ignoring most of the research areas that NRC asked them to study.

HHS has acted in bad faith by coming out with a specific proposal to declare that .7 ppm is safe without having studied all the issues NRC identified in the 2006 NRC Report.

EPA has acted in bad faith by coming out with a specific proposal for a new fluoride reference dose of .08 mg per kg of body weight per day without having studied all the issues NRC identified in the 2006 NRC Report.

HHS and EPA have acted in bad faith by implying that they have done sufficient research to be confident that all may drink all the tap water they want at .7 ppm or at a reference dose of .08 mg per kg of body weight per day and not suffer any harm.

HHS and EPA have acted in bad faith by not proposing any scientific, mathematical, or logical explanation as to how they moved from the evidence of all the actual and potential harms fluoride can cause to their apparent conclusion that .7 ppm SiF in tap water or at a reference dose of .08 mg per kg of body weight per day is safe for everyone.

HHS and EPA have acted in bad faith by being part of the boycott of the journal Fluoride.

The EPA acted in bad faith by stating "The decision on whether to add fluoride to drinking water is … not governed by the Safe Drinking Water Act." In fact, the SDWA allows EPA to terminate fluoridation, although it prohibits the EPA from requiring fluoridation – because the SDWA prohibits enacting any regulation requiring adding of medication to water.

HHS (including CDC) and EPA do not get an E for effort. They get an F for their lack of research, an F for their failure to look after our health, an F for their willingness to poison their own children, and an F for their looking after the interests of big corporations instead of the people.

The FDA gets an A for never having approved artificial water fluoridation, for taking the position that fluoride is a drug and not a nutrient, and that it is not essential to human nutrition. The FDA gets a C- for attempting to quitclaim its authority over artificial fluoridation to EPA; perhaps the FDA thought that the EPA would ban fluoridation.

The FDA gets a D- for allowing fluoridated water to be used to make foods and beverages and a D- for allowing this without requiring the labeling of the fluoride content. The FDA gets a D- for allowing fluoride to be added to bottled water (provided the added fluoride is mentioned on the label).

The FDA gets a F for approving the sale of fluoridated toothpaste, particularly those brands which taste so good that children eat them. The FDA gets an F for allowing NSF to usurp FDA's role as the agency which approves and disapproves drugs and medications. The FDA gets an F for failing to ban artificial water fluoridation.

The FDA gets an F for not banning the feeding of arsenic to chickens, which I mention because SiFs added to drinking water contain arsenic, as discussed in my second letter to HHS and EPA. Go to http://fluoride-class-action.com/hhs. Click on the link to Comments Regarding Lead, Arsenic, and Water Fluoridation.

ACTION PROPOSED

HHS (including the CDC) and the EPA should retract their endorsement of water fluoridation.

The EPA should commission the NRC to write a report dealing with artificial water fluoridation of drinking water. The new report should ask whether it is safe to fluoridate and if so how water fluoridation should be conducted and at what level and with which type of fluoride. The report should be due in one year.

The EPA should exercise its authority under the Safe Drinking Water Act to order an immediate ban on artificial water fluoridation throughout the United States. This ban should remain in place until the new report has been received from the NRC.

HHS and EPA should commit themselves to airing all sides of the fluoridation debate, particularly as it applies to the link between SiFs and lead poisoning. They should post the debate on their web sites. They should correct all the many errors on their websites pertaining to fluoridation, including those relating to the link between SiFs and lead. This policy of openness should apply to all health and environmental issues.

CDC should deal forthrightly with the serious ethics charges laid against it.

The EPA should retract its support of the NSF, including its financial support and its "imprimatur" on NSF publications. The EPA should instruct the NSF to cease making any statements which would imply that the EPA agrees with NSF's certification of SiFs as acceptable fluoridation materials.

The EPA should obtain rights to the NSF 60 book, which says almost nothing and sells for only $325, and make it available on its website so that water districts and everyone else can see what a fraud the NSF 60 certification is.

The EPA should declare in plain and simple English that an MCL is not an authorization to add any level of a particular contaminant, including fluoride, but is to the contrary a requirement to remove that contaminant if its level exceeds the MCL.

The EPA should declare in plain and simple English that an MCLG is a rule against adding any amount of a particular contaminant above the MCLG level. Thus, if the MCLG for lead and arsenic are zero, a water district may not add any lead or arsenic to drinking water whatsoever, including the tiny amount of mercury and lead found in SiF fluoridation materials.

The FDA should ban fluoridation if the EPA does not do it first.

The FDA should require that all bottled water containing fluoride be labeled to disclose the fluoride level and the type of fluoride in the water. It should be presumed that bottled water which says nothing on the label about fluoride contain no NaF or SiF or a minimal amount of CaF_2.

Likewise, all reconstituted juices, all beer, all bread, all foods made using fluoridated water should disclose the fluoride level of the water used to make the product. It shall be presumed that all reconstituted juices, all beer, all bread whose label says nothing about fluoride contains no fluoride.

The FDA should ban fluoridated toothpaste. The risk of children eating it is too great for such a product – one which does nothing to protect teeth against decay – to be found in millions of bathrooms in easy reach of children.

If the FDA should allow continued sale of fluoridated toothpaste, it should require big print warnings that fluoridated toothpaste be kept out of the hands of and not used by children under eight years of age.

If the FDA should allow continued sale of fluoridated toothpaste, the FDA should require that fluoridated toothpaste have a taste that children dislike in order to discourage children from eating it.

EPA, HHS, CDC, and FDA should recommend to the Attorney General of the United States that he appoint special counsel to investigate "Fluoride-Gate".

POTENTIALLY RESPONSIBLE PARTIES

Numerous classes of plaintiffs have been harmed by drinking water fluoridation, including those with kidney disease, diabetes, thyroid disease, dental fluorosis, arthritis, bone fractures, thyroid problems, increased parathyroid hormone activity, secondary hyperparathyroidism, impaired glucose tolerance, premature sexual maturity, endocrine effects, impaired brain function, reduced IQ, osteosarcoma, and other maladies.

The following corporations, associations, governments, and agencies are potentially liable for the pain and suffering, psychological harm, and premature death of those who have been damaged by decades of fluoridated water consumption: local water districts which fluoridate, states which encourage, authorize, or require water districts to fluoridate, HHS, FDA, CDC, EPA, National Kidney Foundation, NSF, AWWA, Lucier Industries, Cargill, Mosaic, and other

fluoride vendors, including the new Chinese and Mexican vendors, Crest, Colgate, and other toothpaste vendors.

The toothpaste companies know or should know that children accidentally swallow toothpaste and are harmed by it and that some eat it because they are hungry and because it tastes good to them.

NSF certifies online that it obtains toxicological studies but in fact obtains none. NSF knows that water districts rely on the NSF 60 certification in choosing to fluoridate. NSF is a sham regulatory agency which has usurped the role of the FDA, that is, to authorize or sanction the use of fluoridation materials for medical purposes.

The FDA is liable for entering into a fraudulent Memorandum of Understanding with the EPA in which the FDA abdicated its duty to put a stop to illegal medication of drinking water with artificial fluoridation materials. EPA is liable for entering into the same scheme and then setting up NSF and continuing to support it financially and to continue to endorse its fraudulent misrepresentation of fluoridation materials as safe.

Fluoride vendors disclaim liability for the slurry liquor fluorides they sell to water districts, however, the vendors know that their fluorides are being used to fluoridate water. Fluoride vendors apply for and obtain NSF 60 certification, and they know that NSF represents that the vendors have supplied toxicological studies on fluoridation materials and that they have not provided them. The vendors also know that water districts are relying on the NSF 60 certification in deciding to fluoridate.

CHEMICAL NATION OR ORGANIC NATION?

Fluoridation is an important health and environmental issue, but it is only one part of a much bigger picture. Fluoridation is but one aspect of our reckless contamination of our bodies and the environment with any and every conceivable chemical for the sake of enriching for-profit corporations.

Organic is not our national policy. Chemical is our policy. If a plant or animal can be grown or raised without chemicals, it does not receive any tax break or subsidy. It does not even receive any government encouragement. But if some chemical company finds some small cost savings that can be achieved with the use of a its chemical, then we allow the chemical to be produced and used. Chemical foods are a little cheaper; cheaper is considered better. The long term, hidden costs of using the chemical on our bodies and the environment are ignored. Industry must be allowed to make profits, and if they claim they can make a profit producing an

unnecessary and harmful chemical, it is our policy to allow the chemical to be produced and used, as long as the adverse effects are not to obvious, as long as the chemical can be disbursed when its use is complete, and as long as users have not yet proved that the chemical is harmful. Our regulatory agencies bend over backward to allow the sale and use of these chemicals. Our Environmental Protection Agency is a Chemical Permitting Agency.

Our policy is that the solution to pollution is dilution. The way to dispose of toxic fluoride scrubber liquor is to dilute it into our drinking water. We have lost our way.

The solution to pollution should be not to produce the pollution in the first place.

It should be our goal as a nation to be as organic, as non-toxic, as non-chemical, as non-coal, as non-petroleum, as non-gas, as non-fracking, as non-nuclear, as recyclable, and as humane to animals as we can possibly be. If we set this as our goal, we would be healthier and probably healthier. There would even be financial advantages: Our health care costs would drop. Our products would be of higher quality and would sell around the world and for a better price.

The best way to deal with garbage and trash is to recycle as much as possible and throw away as little as possible. To do that we should collect a deposit at the time a product is sold – whether it is a food or beverage container, a motor vehicle, or a computer – which will pay the cost of recycling it when its useful life is over.

What I read in the Clean Water Act and the Safe Drinking Water Act is consistent with such organic, non-chemical, and non-toxic goals. We should strive to discharge as close to zero toxic waste as possible into water and air. Any chemical or agricultural task which can be accomplished without the use of toxic chemicals should be done without them – even if it costs more to do so. It is counter-productive to produce toxic chemicals just so chemical companies can make profits. Instead chemical companies should learn how to make their profits without producing toxic chemicals.

Congress states our national environmental purpose in the Federal Water Pollution Control Act of 1972, commonly known as the Clean Water Act. It is:

> to restore and maintain the chemical, physical, and biological integrity of the Nation's waters.... [I]t is the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985. [I]t is the national policy that the discharge of toxic pollutants in toxic amounts be prohibited....

Allowing water fluoridation necessitates dumping contaminants into navigable waters. Under the Clean Water Act the term "navigable" is very broad. Water downstream from fluoridated cities contains significant amounts of fluoride. Fish swim the other way.

The Safe Drinking Water Act issues the same call. The SDWA specifically prohibits requiring the addition of any chemical to drinking water for medical purposes. See 42 USC 300g-1(b)(11)[3]:

> No national primary drinking water regulation may require the addition of any substance for preventive health care purposes unrelated to contamination of drinking water."

I read these same organic and non-toxic values in § 300g–1 of the SDWA:

> The Administrator … shall take into consideration … the effect of such contaminants upon … infants, children, pregnant women, the elderly, individuals with a history of serious illness, or other subpopulations … identifiable as being at greater risk of adverse health effects due to exposure to contaminants in drinking water than the general population.

The EPA is to look after the most vulnerable. Instead, it looks after the profits of chemical companies.

I read these values in the definitions of Maximum Contaminant Level, and Maximum Contaminant Level Goal. The MCLG is the

> level at which no known or anticipated adverse effects on the health of persons occur and which allows an adequate margin of safety.

The MCL specifies

> a maximum contaminant level for such contaminant which is as close to the maximum contaminant level goal as is feasible.

Most critics of fluoridation focus on the MCL of 4 ppm. But it is not just the MCL that is too high; the MCLG is too high too. The EPA set the MCLG ridiculously high so that the MCL could be set ridiculously high.

All the plants and animals we raise can be raised organically, without chemicals like super-phosphate fertilizer. We not only over-fertilize our corn, cotton, soy, and wheat with super-phosphate fertilizer, we actually feed it to our farm animals! Plants and animals can be grown cleaner, healthier, and more nutritiously if they

are raised without chemicals. Workers can be healthier working in organic agriculture.

The spoliation of sections of land in Florida and Louisiana to make super-phosphate fertilizer – which produces in turn most of the SiF used as fluoridation materials – is unnecessary. In most parts of the United States there is sufficient phosphate already in the soil; it is only necessary to adjust soil pH to release it.

Tax breaks for growing soy and corn that will be fed to food animals should end. It should be our goal to raise all food animals cleanly and organically on small farms, and to raise and kill them humanely. The price of meat would be higher and we should eat less of it. It should be a condiment instead of the main course. Large industrial farms – ugly slums of filth, disease, and suffering – should be shut down. I hope more of us will go so far as to quit using animals for food altogether. With our population at 7.0 billion and headed for 9.0 billion, we should eat a green diet that is as low as possible on the food chain.

GMOs should be banned. GMOs are alien species. Their existence may do us harm. In the case of the bees – which pollinate the crops we rely on – they are already doing harm. Chimeras pollute the gene pool. GMO pollen is spread everywhere by birds, insects, and the wind. Organic strains are being polluted. The only advantage of GMOs is that they create monopoly profit for certain corporations.

We should get all our energy from sun, wind, wave, tide, and geothermal. There is more than enough energy from such sources to supply all our needs. We can make all the electricity and hydrogen we need without coal, oil, natural gas, or nuclear plants.

We should shut down all our nuclear plants. Uranium is filthy to mine. There are uranium tailings that run down the Colorado River and are in the drinking water of the Southwest. When the inevitable earthquake, hurricane, tornado, or coronal mass ejection comes, or when the inevitable human error occurs, a resulting loss in control can lead to a catastrophe.

There is only financial loss in the nuclear endeavor after the reactor shuts down. The cost of storing guarding nuclear waste for 100,000 years is far more than the value of the electricity which nuclear plants produce during their 40 year lives. And nuclear power is a stepping stone to nuclear weapons.

The chemical, fertilizer, agribusiness, nuclear industries would laugh at such goals and they would resist them. They believe that they will be unable to make as much

profit producing a clean product. They are wrong: There is plenty of money to be made organically.

Corporations have limited liability. Most corporations care little about anything except maximizing profits, although there are some exceptions. Profits must grow, or new management will be brought in. In the case of industries that sell fluoride, management must poison its own children, or new management will be found which will.

The flaw in corporate structure is that the corporate veil which shields the shareholder from any financial responsibility – in excess of the amount invested— also shields the shareholder from any moral responsibility. The typical shareholder fails to demand high ethical standards of the corporation, in part because it might lessen profits.

Corporations are non-personal beings. They are super-beings. They have eternal life. The power of corporations needs to be curtailed. Executives and large shareholders should have personal liability for violations of law.

Just as we broke free of royalty, we should break free of the giant corporations. The fluoride problem is just one part of a larger chemical, fertilizer, agribusiness, nuclear problem. Ending fluoridation is only one aspect of a democratization which must take place.

The fluoride problem grew out of the uranium and nuclear industry during World War II when rules could be broken in the name of national defense. The rule breaking never stopped.

The fluoride problem grew out of the chemical, agricultural, fertilizer industry – which resists finding a cleaner way to earn profits.

Big chemical companies make political contributions to candidates and in this way buy seats on the boards of EPA, CDC, FDA, and other agencies. The agencies created to protect people instead protect the profits of the big corporations. A constitutional amendment is needed to limit contributions and finance campaigns publicly.

I have traveled far afield from the fluoridation issue, but I have done so only because the fluoridation issue is so intertwined with the other issues mentioned. All the agencies need to start doing good and honest science – on all the issues that touch on our health and well being.

These are lofty standards. The money fixated would mock them as unrealistic. Nevertheless, we should strive to attain them. We should respect life in all ways possible. If we do we will be wealthier, not just in money but also in the peace and beauty which would surround us.

Sincerely,

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