FROM THE APRIL 2006 ISSUE OF *INSIDE THE FISHBOWL* Scientific Integrity Activities by Bill Hirzy

Over the past six weeks I have been involved in a number of activities spreading the word of Chapter 280's work – and the work of other EPA unions – in the area of scientific integrity. I was invited to appear on three broadcasts from stations in Monterey, California (The Dr. Stan Monteith Show). On all of these radio shows I spoke mainly about the scientific basis of the letters signed by Presidents of eleven of EPA's labor unions across the country and sent to Administrator Johnson and to key Committee Chairmen in Congress (See *Fishbowl Splash*, August 2005). The letters dealt with the apparent cover-up of an epidemiology study showing a 7-fold increased risk of osteosarcoma among pre-adolescent boys who drank "optimally" fluoridated water.

The National Public Radio station in Los Angeles ("Which Way LA," with Brian Almay) also invited me to appear with Dr. Jonathan Fielding and Dr. David Nelson, two promoters of water fluoridation, in a discussion of the science issues. When Fielding and Nelson were informed by the show's producer an hour before air time that they would be discussing fluoridation with me, they refused to go on the show. That was typical of pro-fluoridationists – refusal to engage in a public discussion of the pros and cons of their pet scheme. You may recall that Chapter 280 arranged to schedule a debate on fluoridation as part of EPA's Science Forum 2004, and got Roberta Baskin, then with the *Bill Moyers NOW* show on National Public Television, to be the moderator. We arranged to have Professor Paul Connett of St. Lawrence University and Director of the Fluoride Action Network to represent the con side the fluoridation issue, and EPA tried - in vain – to get anyone to represent the pro side. No one, from the Surgeon General to local dentists, had the courage to engage Dr. Connett in a discussion of what would unavoidably had been centered on the toxicity of fluoride and its lack of efficacy as a systemic treatment modality for dental caries.

On February 28, I met with Catharine Ransom and Caroline Ahearn, of the minority staff of the Senate Environment and Public Works Committee, following up on the 11-unions letters referred to above. Ms. Ransom indicated that it was unlikely that a hearing specifically devoted to fluoridation would take place in the near term, but that hearings were planned on the Safe Drinking Water Act, and that these would look into the National Research Council's report to EPA on the adequacy of EPA's standards for fluoride in drinking water. I delivered to them and discussed a draft bill calling for a moratorium on water fluoridation that had been circulated for comment among the 11 unions and our executive board; a moratorium was asked for in the 11unions letter, along with an investigation into possible violation of federal law by Chester Douglass, the research director of the epidemiology study. Douglass had reported to the funding agency, the National Institute of Environmental Health Sciences, that there was no association between water fluoridation and osteosarcoma at the same time that he signed off on the dissertation/epidemiology study that showed the 7-fold increased risk. Ms Ahearn was also interested in the use of hydrofluosilicic acid in most fluoridation systems and the fact that the acid is contaminated with significant levels of arsenic and appears to contribute to elevated risk of increased blood-lead levels in children drinking water containing it.

On March 14 I and members of ActionPA, a Pennsylvania environmental activist organization, visited with members of the Pennsylvania state legislature about a bill that would mandate state-wide fluoridation there. The Action PA folks spoke mostly about the history of similar attempts to fluoridate their state, and I addressed the science issues, emphasizing the 11-unions letters on the subject. Representative Leach, a co-sponsor of the mandate bill, was especially impressed with our presentation and asked if we would be willing to debate the subject. Of course we jumped at the suggestion, and he asked his chief of staff to see if a debate could be arranged. Later in the day we discovered that the bill would be on the floor that evening or the next day, so a debate would be moot. But the next day, March 15, while on the floor the bill was "suspended," meaning it would not come again to the floor before April – possibly not even until next year. We shall have to see whether the Pennsylvania legislature will be any more successful than EPA in persuading proponents of fluoridation to debate.

On a separate scientific integrity matter, scientists in Region 8, along with our own Brian Dementi (and possibly others) have been interviewed by representatives of the Inspector General in connection with how EPA is administering the Food Quality Protection Act. Of particular concern is whether EPA has the necessary tools to adequately address the issue of developmental neurotoxicity (DNT) of organophosphates. We understand that the Office of Pesticide Programs is engaged in a dialogue with the IG on this subject, but the view of some of our toxicologists is that the subtle decrements in cholinesterase that have been observed in some DNT studies may cause adverse behavioral or cognitive effects, especially in the young, while those same decrements are too small to be observed in standard neurotoxicity tests. I am working with these toxicologists on a way to bring their professional concerns to bear on this important public health issue that is consistent with EPA's Principles of Scientific Integrity and our Civil Service oath of office.

Fluoride Report Issued by NRC Validates Union's Work on the Issue by Bill Hirzy

The National Academy of Sciences' (NAS) Nation Research Council (NRC) released its report, "Fluoride in Drinking Water: A Scientific Review of EPA's Standards," on March 22, and it was a vindication of this union's concerns about fluoride toxicity dating back to 1986.

When EPA issued its primary drinking water standards for fluoride in 1986, the union, which then was Local 2050 of the National Federation of Federal Employees and was led by Dr. Robert Carton, told the public that the standards were not protective of public health. That is exactly what the NRC panel of independent scientists said in its 450 page report. The panel recommended that EPA lower its standards from 4 milligrams of fluoride per liter (mg/L) to an unspecified lower level.

The report calls severe dental fluorosis, which occurs in a significant fraction of people drinking water at 4 mg/L, an adverse health effect, something the union has been saying for twenty years. In contrast, the American Dental Association and the Centers for Disease Control, while pushing to increase the public's exposure to fluoride through nation-wide fluoridation of drinking water supplies, have always referred to the condition as a "cosmetic" effect. The NRC now joins our

union in pointing out that this was an invalid propaganda ploy by those whose devotion to promoting water fluoridation overrode their obligations to protect public health.

The union got involved in this fight in 1986 as a matter of scientific integrity and to protect the right of EPA employees to live up to their Civil Service oath, which binds them to defend the Constitution. The union believes that in violating the Safe Drinking Water Act in 1986 by failing to set the MCLG at a level to protect against the adverse health effect of severe dental fluorosis, EPA management perpetrated an assault on the Constitution.

The NRC panel also found that it was likely that there is an increase in bone fractures and increased risk of Stage II skeletal fluorosis among people drinking water at the 4 mg/L level. Again, our union has been saying this for years as its representatives have traveled around the United States helping citizens fight off efforts of the ADA and the CDC to add more fluoride to their water supplies and diets.

Furthermore, the panel expressed concerns similar to those of the union over adverse effects on the brain and central nervous system, as well as endocrine disruption, including effects on thyroid function. The panel report also cautions against assumptions - put forward by proponents of fluoridation – that there is no evidence that fluoride can cause cancer.

Two members of the NRC panel also expressed their beliefs, which parallel those of the union, that water fluoridation itself, while not specifically addressed by the panel, may pose a public health risk.

An Oregon newspaper reports, "NAS panel member Kathy Thiessen, a former senior scientist at Oak Ridge National Laboratory who has studied fluoride for the EPA, said the report showed 'the potential is there' that water fluoridation is unhealthy. As for the studies finding that higher levels damage children's IQ, she said it's possible water fluoridation levels may have a similar, albeit reduced effect ... the research suggests 'most people should minimize their fluoride intake' -- which includes avoiding fluoridated water."

"NAS panel member Robert Isaacson, a distinguished professor of neurobehavioral science at the State University of New York in Binghamton, agreed, saying that the possible effects on endocrines and hormones from water-fluoridation are 'something that I wouldn't want to happen to me ...,"" reports the Portland Tribune.

Former union President, Dr. Robert Carton, who led the union's efforts studying fluoride toxicity starting in 1985 and without whose leadership we would never have gotten into the issue, also weighed in on the panel's report. "This report is misleading by suggesting that the problem has to be studied to death before decisions can be made. The safe drinking water act requires the federal government to act if there is any indication of possible or anticipated adverse health effects in order to protect the most vulnerable subsets of the population. Furthermore, why wasn't there a minority report? Fluoride has detrimental effects on the thyroid gland of healthy males at 3.5 mg a day. With iodine deficiency, the effect level drops to 0.7 milligrams/day for an average male, according to the report."

Sierra Club Official/Columbia Riverkeeper Lauds Union Work on Fluoride

by Bill Hirzy

I received a message of congratulations about the NRC report and the union's involvement in the issue from attorney Brent Foster of the executive committee of Oregon chapter of the Sierra Club. I responded with thanks, and he then sent the following, more detailed message that shows the kind of impact the union has had, of which we were not even aware. Mr. Foster's message suggests that there are probably lots more friends of the union out there who became such because of our fluoride work. His message also vividly illustrates that the union is helping in a very tangible, measurable way to promote the mission of the Agency through our work of this kind.

"Well I'll throw back a big thank you to all of you great EPA folks for being willing to take a stance on the fluoride issue. When I first had to research the fluoride issue from a salmon toxicity perspective for a client several years ago seeing the EPA union's concerns about fluoride was really influential in changing my assumptions about fluoride.

"A year after first reading the EPA D.C. union's position papers/testimony on fluoride I wrote a ballot measure and managed a campaign that prohibited the addition of any industrial waste byproduct or other substance that would cause the water to exceed EPA's Max. Contaminant Level Goals to the City of Hood River, Oregon's water. The measure didn't even mention the word fluoride (which drove the dentists nuts) but passed with almost 60% of the vote and defeated a 15 year effort to add fluoride to our drinking water.

"EPA's position was also a key factor in encouraging our executive committee for the Oregon Chpt. Sierra Club to oppose mandatory fluoridation bills in Oregon last year and was cited by the Chair of Oregon's Senate Environment Committee as a major reason why he refused to pass a mandatory fluoridation bill out of committee.

"Thanks again for your leadership and integrity on this issue- it's greatly appreciated and I believe it will be remembered as one of the key factors which changed the way we think about water fluoridation.

"Brent Foster Executive Director, Columbia Riverkeeper

"Executive Committee Oregon Chapter Sierra Club"