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Accidents (... and risks)

To list all of the accidents involving fluoride chemicals would be far too cumbersome. Instead, it is more appropriate to give a selection of stories and headlines which gives some idea of the impact of some of the terrible accidents that occurred during the 1990s.

[1] Excerpts from: Final Report: Hooper Bay Waterborne Outbreak - Fluoride. April 12, 1993.

State of Alaska Department of Health and Social Services, Division of Public Health, Section of Epidemiology

Based on fluoride levels of water collected from water system 1, the level during May 21-23 was most likely <150 mg/L.

In order to calculate fluoride doses, we assumed that the fluoride concentration of all water collected during May 21-23 was 150 mg/L.

Using this assumption, fluoride doses ranged from 0.3 to 21.0 mg/kg; the man who died consumed an estimated 17.9 mg/kg.

Among case patients, 10 (16%) had an estimated fluoride dose of <1.0 mg/kg and 21 (34%) had an estimated dose of <2.0 mg/kg; 13 (21%) had an estimated dose of <8.0 mg/kg.

If the actual fluoride concentration in water system 1 was <150 mg/L, the estimated fluoride doses would be smaller. The urine (r=0.81) and serum (r=0.73) fluoride levels and the duration of illness (r=0.57) were linearly related to the estimated fluoride dose.

Assuming that the outbreak was caused by drinking water with a fluoride concentration of 150 mg/L, the minimum estimated fluoride dose which caused illness was 0.3 mg/kg or approximately 28 mg of total fluoride.

This level is lower than other reports (5-7) and 27 times less than than the the 8.0 mg/kg recommended as a maximum safely tolerated dose in another report (4).

Furthermore, for case-patients whose fluoride dose was estimated, 16% consumed <1.0 mg/kg and 34% consumed <2.0 mg/kg. This implies that both acute gastrointestinal symptoms and systemic toxicity may result from doses lower than previously believed.

We found that following acute fluoride poisoning, symptoms and toxic serum levels persisted longer and toxicity occurred at lower doses than previously reported.

[2] Spill snarls traffic, lives. The Orlando Sentinel. September 7, 1994

The acid closed the road into the night, forced 2,300 from homes and sent 50 to hospitals.

By Cory Lancaster OF THE SENTINEL STAFF.

DELTONA - Jeff Carine was driving to Daytona Beach to play golf Tuesday morning when his Toyota Camry hit a mushy, snowlike liquid covering Interstate 4. Carine, a golfer from Windermere, assumed it was a minor chemical spill and kept driving. Six hours later, he returned to the spot after hearing news throughout the day about one of the worst chemical spills in Volusia County's history.

A tanker truck cracked open on I-4 near Deltona shortly before 10 a.m. and released 4,500 gallons of fluorosilicic acid in one big whoosh. Early today, the highway remained closed in both directions, though officials were hopeful it would open by the morning rush hour. About 2,300 people remained in shelters, evacuated from their homes.The spill sent more than 50 people to hospitals with complaints of skin and respiratory irritations, including some hours after the spill. Most, including the driver of the truck, were treated and released. Two police officers were admitted overnight to Central Florida Regional Hospital in Sanford after complaining of headaches and burning in their throats.

Authorities were frustrated In attempts to neutralize the acid with lime and potash, which delayed I-4's reopening. Fumes also were detected late Tuesday in the neighborhood of Deltona Woods, causing emergency workers to conduct a midnight door-to-door evacuation. The Florida Highway Patrol is investigating the spill. A spokesman from Pencco Inc., the Bellville, Texas-based chemical company that owns the tanker, would not comment on the accident late Tuesday.

The tanker truck started out from Fort Meade, south of Lakeland, about 8 a.m. Tuesday, FHP Patrol Lt. Art Brown said. The truck driver, James Parish, 68, said he was eastbound, just west of the Howland Boulevard overpass, when the rear trailer wheels came out from under the truck. The back of the tanker slammed onto the road and spilled the chemical over an area 600 feet long and 60 feet wide, Volusia County Assistant Fire Chief Ron Bateman said.

A stretch of two miles of 14 was closed between Deltona and Orange City. Vehicles were rerouted off the interstate onto Saxon Boulevard from the west and onto State Road 472 from the east. The detour meant at least an hour delay as bumper-to-bumper traffic inched along U.S. Highway 17-92 through Orange City. "I never saw such bad traffic in my life," said Betty Casselman, who was kept from her home in the Country Village Mobile Home Park in Orange City.

Police, firefighters and hazardous waste experts dumped bags of lime over the contaminated area to neutralize the acid and vacuumed the residue with special machines. Fluorosilicic is a highly corrosive acid used in the process of adding fluoride to drinking water hazardous waste experts said. If inhaled, it can cause respiratory difficulty, burning eyes and numbness around the Ups. Upon contact with skin, it creates a burning and tingling sensation. Symptoms can take up to 24 hours to appear, medical experts said. The chemical evaporates quickly and is carried by the wind. Fearing a health hazard, police began evacuating homes within a mile area, including about 1,750 people in Orange City and 500 people In Deltona. Students and teachers at Deltona High School went home early.. Those with symptoms were mostly emergency personnel.

"*Most of the people who come in did not have. symptoms,"* said Dr. Charles Duva, an emergency room doctor at West Volusia Hospital. *"We scrubbed them and washed them down."* Another man was riding In a truck with his arm hanging out the window, Duva said. The man said he experienced burning on his forearm. He also was released.

Bo Poertner, a columnist for The Orlando Sentinel, spent most of the day at West Volusia Hospital. Poertner was driving behind the tanker and changing a cassette tape when he heard a *"big bang."* He looked up and saw the rear trailer wheels bounce and spin in the air. Poertner swerved to avoid the wreckage and drove through 6 inches of thick liquid that he described as wet cement. He pulled over and jumped out to see if the driver was hurt. The driver was fine but seemed worried. *"He had his hand on his chest like he was really nervous"* Poertner said. *"I told him it was OK and not to worry."* Poertner and two other motorists stopped and waited for rescue personnel. Others kept driving.

"There are probably many motorists who drove right through and didn't realize it and some of them might not be being feeling well" Deltona FIre Capt. Chris Nabicht said. Carine, the golfer who drove through the chemical, estimates that as many as 150 cars got through before the highway closed. The chemical left a white film underneath his car that must be professionally decontaminated. *"It looked like dirty, mushy snow, 2 to 3 inches thick"* he said. *"The color ... the feel of the road - it was identical to wet snow."*

Elaine Bennett Purvette Bryant, Lynne Bumpus-Hooper and Derek Catwn of the Sentinel staff contributed to this report.

[3] Middletown Maryland Latest City to Receive Toxic Spill of Fluoride in their Drinking Water

The Townsend Letter for Doctors, October 1994: Report by Robert Carton, Ph.D., & The Truth About Fluoride, Inc.

Officials of Middletown, MD warned residents by radio in November, 1993 not to drink or cook with city water due to high fluoride levels. Malfunctioning fluoridation equipment caused excessive fluoride levels of 70 parts per million (ppm) in the distribution system. This is 70 times the normal level and almost 18 times the level considered safe by EPA. The Maryland State Department of Health stated that they did not plan to do a health survey to determine if any residents experienced symptoms of fluoride poisoning.

Based on other fluoridation accidents, the 70 ppm of fluoride is sufficient to cause vomiting, diarrhea, skin rashes, fever, and other effects. In 1986, a fluoridation accident in New Haven (North Brantford), Connecticut, resulted in the public receiving water with 51 ppm fluoride for twelve hours. A health survey, conducted four days later on 312 persons, determined that 55 of those experienced symptoms of fluoride poisoning which lasted from 1-60 hours.

Robert Carton, Ph.D., local scientist and editor of the newsletter The Fluoride Report, stated that “Quick action by Middletown authorities may have prevented a public health disaster.” Dr. Carton referred to an accident that occurred last year in Hooper Bay, Alaska where 260 were poisoned and one man died. Levels of fluoride in Hooper Bay drinking water were thought to have been 150 ppm or less.

Middletown and state workers stayed up all night flushing out the distribution system. Although the town was warned by radio not to drink the water, many residents did not become aware of the problem until they read their morning paper, or talked to neighbors. Town and state officials had considered calling out the National Guard to go door to door to warn residents of the high fluoride levels. However, Louise Snodgrass, Middletown official, stated that this action was not taken due to concern this step would frighten citizens unnecessarily. The Frederick Post reported that Middletown water is again safe. Fluoridation has not been reinstituted.

Dr. Carton also pointed out that toxic spills of fluoride in drinking water are never publicized by fluoridation promotion agencies, the Public Health Service, the National Institute for Dental Research, and the Center for Disease Control. The following is a partial list of known fluoridation accidents never publicized with a national press release which would alert city councils and the public of the inherent risk in fluoridation:

*August 1993 -- Poplarville, Miss: 40 persons poisoned; 15 sought treatment at hospital. Pizza Inn manager was the first to notify city officials after several customers became ill.

*August 1993 -- Galesburg, Illinois: Tank truck delivering fluoride to water treatment plant leaked 15-20 gallons on city street. Streets barricaded until fire department’s hazardous materials unit could clean up the spill.

*July 1993 -- Chicago, Illinois: see bottom of page.

*May 1993 -- Kodiak, Alaska (Old Harbor): Residents were warned by phone and public radio of high fluoride levels. Officials warned that the more water consumed with elevated fluoride, the worse the danger becomes, and that boiling water could concentrate the fluoride even further. Boiling water in preparing foods always concentrates the fluoride even with 1.0 ppm. The fluoridation equipment appeared to be operating normally; 22-24 ppm fluoride was found when a monthly sample was sent to the Public Health Service lab in Kodiak. Bruce Erickson, DEC environmental manager, said these levels could indicate higher levels were in the system.

*January 1993 -- Sarnia, Ontario: Fluoride at 13 ppm Mayor and public notified after the fact. Sarnia Mayor Bradley stated that the public should have been notified in time so people could choose whether to drink the water or not. And, that those responsible for fluoridating, “shouldn’t be investigating itself.” The fluoridating computer-controlled system had failed to shut down.

*July 1992 -- Marin County, California: Due to a pump malfunction allowing too much fluoride in the Bon Tempe treatment, 2 million gallons of fluoridated were diverted to Phoenix Lake, elevating the lake surface by more than two inches forcing some water over the spillway.

*June 1992 -- Danvers, Illinois: Fluoride pump malfunctioned; level of fluoride not stated in local paper, but warning must have been given. After flushing the water through fire hydrants, the Illinois EPA allowed the city to lift the warning.

*May 1992 -- Hooper Bay, Alaska: see first article.

*February 1992 -- Rice Lake, Wisconsin: Residents vomiting: Centers for Disease Control stated that 150 water consumers potentially at risk. Pump overfed fluoride for two days, thought to have reached 20 ppm. In a domino effect, high winds caused volt lines to connect, causing conductors to burn to ground and a jumper to fail, resulting in failure of the anti-siphoning device, causing fluoride to pour through the pipes. The Wisconsin State Dental Director, stated, “To be harmful, exposure would have to have been about 225 ppm.” This statement cannot be substantiated in any publications documenting the toxicity of fluoride.

*December 1991 -- Benton Harbor, Michigan: Faulty pump allowed approximately 900 gallons of hydrofluosilicic acid to leak into a chemical storage building at the water plant.City Engineer Roland Klockow stated, “the concentrated hydrofluosilicic acid is so corrosive that it ate through more than two inches of concrete in the storage building.”This water did not reach water consumers, but fluoridation was stopped until June 1993. The original equipment was only two years old; Mr. Klockow had hoped to recover the cost of the pump and repair costs to the building.

*September 1991 -- Calgary, Alberta, Canada: Fluoride diffuser problems in six machines. Leak of seven liters (quarts) of fluoride sent two water treatment personnel to the hospital for oxygen after breathing the fluoride fumes. Gary Lamb, engineer, stated that “This product is an acid so we can’t put it through a steel pipe because it corrodes, but plastic isn’t strong enough.”

*September 1991 -- Burlington, North Carolina: 4,000 gallons of a 6,000 gallon fiberglass fluoride tank ruptured. Water plant workers wearing special suits contained the spill to the water treatment plant. Replacement tank was expected to cost $15,000.

*July 1991 -- Portage, Michigan: Approximately 40 children with abdominal pains, sickness, vomiting and diarrhea at an arts and crafts show at school. One of the city’s fluoride injector pumps failed. Fluoride levels not determined at the time, but later tested at 92 ppm.

*November 1990 -- St. Louis, Missouri: 500 gallons of hydrofluosilicic acid leaked from a ruptured pipe at the St. Louis County water works plant. About 12 employees were evacuated. Fireman built sand dikes around the leak, added lime to the spilled fluoride to neutralize it, and plugged the pipe.

*October 1990 -- Westby, Wisconsin: Four families suffered a week of diarrhea, upset stomach and burning throats. Fluoride equipment malfunctioned, causing the fluoride to surge to 150 ppm. The water utility supervisor said he had expected the fluoride to be ten times normal since it had burned his mouth. The fluoride corroded the copper off the pipes in area homes, 70 times higher than the EPA recommended limit. Westby Council stopped fluoridating.

*January 1988 -- Schenectady, New York: Spill of 2,000 gallons of fluoride completely destroyed the fluoridation facility. Over $48,000 spent to clean up the spill and dispose of fluoride in approved dump site. It was estimated that the cost to replace the facility would be $261,000.

*March 1986 -- New Haven (No Branford) Connecticut: Of the 312 persons interviewed four days after the accident, in the 127 households at risk, 18% had symptoms of abdominal cramping, nausea, headache, diarrhea, vomiting, diaphoresis (profuse sweating), and fever. This did not include those with rashes and irritation from bathing and washing dishes. The fluoride peaked at 51 ppm. The acidic fluoride leached copper; the Connecticut State Dental Director chastised water department personnel for not recognizing immediately that public complaints were due to fluoride and not copper. This accident was finally reported two years later in the American Journal of Public Health, June 1988...

*November 1979 -- Annapolis, Maryland: One death in a dialysis patient; other dialysis patients suffered a cardiac arrest (resuscitated), nausea, hypotension, chest pain, diarrhea, itching, flushing vomiting (blood tinged), difficulty breathing, profuse sweating, weakness, numbness, and stomach cramping. Water consumers not on dialysis also reported nausea, headache, cramps, diarrhea and dizziness.

The Evening Capital reported in October 1982 that the wife of the dialysis patient who was brain-injured had sued the City of Annapolis for $480 million; this was settled out of court in 1985. Other patients also sued. Pepsi Cola sued for $1.6 million for damage to product. Waterworks personnel were also sued, demoted, and had payroll deductions.

The Baltimore Sun reported in a November 1979 story on the fluoridation accident that, “Even though state and county health officials learned of the spill nine days after it occurred, no public announcement was made and the City Council was not told of the situation for six more days...” And, quoted a County Health officer stating that the delay in notification was because “We didn’t want to jeopardize the fluoridation program...”

Ironic and tragic, again in Annapolis, the Evening Capitol reported on January 6, 1990 of the death of the executive director of the Association of Area Business Publications, and former Kentucky newspaper publisher. On July 27, 1989, he had asked for a glass of water in a drug store to take a penicillin tablet for a toothache. By mistake, he was given a glass of stannous fluoride. He immediately suffered a cardiac arrest and brain damage, going into a coma. On August 22, the family asked that life support systems be withdrawn.

Much of the information on toxic spills of fluoride that does reach the public is incomplete and inaccurate. In the November issue of Opflow, an American Water Works Association publication for water operators, only seven fluoridation accidents were listed as occurring from 1976-1992. The population at risk for the Annapolis spill is listed as “8” when, in fact, thousands were at risk. Unless a death occurs, Tom Reeves, National Fluoridation Engineer, Centers for Disease Control, refers to fluoridation accidents as “overfeeds,” and has stated that water consumers “cure themselves by vomiting” during fluoridation accidents.

The toxicity and corrosiveness of fluoride compounds the risk of fluoridation equipment malfunction and operator error for all fluoridated water systems.

The above stories are examples of what can go wrong. Another story involves the dangers posed to kidney dialysis patients in an American hospital:

"3 U. of C. kidney patients die". "5 others have allergic reactions to dialysis treatment". Source: Chicago tribune, July 17th, 1993.

"Fluoride blamed in dialysis deaths". Source: Chicago Tribune, July 31st, 1993.

"Fluoride Blamed in 3 Deaths". "Traces Found in Blood of U. of C. Dialysis Patients". Source: Chicago Sun-Times, July 31st, 1993.

Note: U. of C. is the University of Chicago hospital.

Haemodialysis in the UK

In the UK there is a more laid-back attitude to the inherent dangers of overdosing. In 1985, the year the Water Fluoridation Bill was rushed through Parliament, the Department of Health & Social Security issued a Safety Information Bulletin (ref: SIB [85] 2). Item 3 states:

"Where haemodialysis is undertaken with fluoridated water, serum fluoride levels in the patient could be considerably higher than in the case of persons consuming the water in the normal way."

Although Item 4 states that no documented cases of fluoride toxicity have been reported, it goes on to say that ...

"... minimum exposure by this route is desirable." (... not essential???)

Dialysis treatments can use in the region of 120 litres of water. This makes 120 mg of fluoride if the water has been fluoridated. However a manufacturer of water purification systems for hospitals has told me that while he has never been officially requested to provide a system to remove fluoride from water, his company's equipment would in fact do the job quite well. What he actually said was that the equipment would remove 95% of all fluoride. This means that 5%, or 6 mg, will remain in 120 litres of treated water.

Responsibility and trust

So what information was gleaned from these stories. That is was just bad luck that these people died? Promoters of fluoridation never seem to be able to cope with the question of the effects of this noxious substance on those unfortunate enough to have a serious medical condition. They are the lost equation. They are never considered because of the propaganda that is put out by 'sponsored' Governments and 'grant-dependent' scientists who repeatedly reassure us that there is nothing wrong with fluoride. Who do they think they are kidding?

We must also not forget the dentists who think that their practices now extend beyond the surgery door and into wild blue yonder. Just try telling a dentist that you do not want medication in your tap-water and see the response you get. And what about the water companies? The question the reader should now ask themselves is:

- Do I trust my water company when they tell me there is no danger of over-dosing?
- Do I trust them to tell the truth if there is an accident?
- What if the accident is considered to be 'trivial' - will they still own up?
- Will they be ready to accept the consequences?
- If they appear to be somewhat blasé towards the issue of leaking water mains, then what importance will they attach to faulty or leaking fluoridation machinery?

There are still a lot of unanswered questions when it comes to the issue of safety and possible accidents.

Although legislation exists to compensate those unfortunate enough to suffer from 'over-exposure' to this volatile chemical, will the Government honour their indemnities or will they try to wriggle off the hook?

It can take years to be compensated, if you are lucky, and all just for being a victim of someone else's irresponsibility.