Yorkshire Citizens Caring for Yorkshire People

The Fluoridation Report Submitted to Wakefield County Council

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Argument Against Fluoridation of Wakefield Water Supplies Based Upon the Best Evidence of Current Medical Studies:

The purpose of this report is to offer a comprehensive overview for the counter-argument against the fluoridation of Wakefield water. In this detailed survey the current author is opposed to the fluoridation of local water supplies a position based upon the latest medical research including the citation of a number of important scientific papers. The statistical data when taken as a whole presents compelling evidence for concerns regarding the agent fluoride and its toxicity in humans at very low doses.

This paper will discuss possible neuro-toxin damage including birth defects, elevation in cancer rates and documented thyroid problems. All of this research quoted in this document has been produced by medically qualified Doctors and scientists. In many of these medical papers the case against fluoride in water is plainly articulated and several of the cited authors are affiliated to prestigious Universities and research facilities. This paper will cite over a dozen studies and consists of invaluable information that exploits the latest scientific data on fluoridation.

In this investigation I have divided it into ten sections that list the adverse effects of fluoride. The report systematically details research by eminent Doctors, scientists, medical professionals and dentists, that at the very least questions the general presupposition that fluoride is safe for humans to ingest in small amounts. The sections are as follows:

(1) Introduction / A Short History of Fluoridation.
(2) The British Study and Evidence that Fluoridated Water Leads to an Increased Susceptibility to Thyroid Damage (Professor Stephen Peckham).
(3) Dentistry Concerns about Fluoride and its Efficacy (Dr. Hardy Limeback PhD, DDS Associate Professor and Head of Preventive Dentistry from the University of Toronto).
(4) Industrial Problems with Fluoride.
(5) Developmental Toxicity of Fluoride and its effects upon Children and IQ / Neurotoxicity of Sodium Fluoride in Rats.
(6) General Studies Appertaining to the Brain and Nervous System including Internal Organs and the Detriment of Fluoride.
(7) Foetus Damage and Fluoride.
(8) Neuro-Toxin Effects of Fluoride (The Mexican Study).
(9) British Medical Journal: No Proper Review of Fluoride.

(10)Fluoride and the Cancer Link (Dr. Burk – National Cancer Institute Testimonial Before Congress).

Conclusion

Government and local authority's role and legal responsibility in providing clear policies that protect the local population and the environment from harmful substances. [EU Drinking Water Directive (98/83/EC)].

Appendix 1

Important questions that Wakefield Consultation Process should answer with regards to fluoride and its safety concerns relative to the general public.

Appendix 2

Toxicity of children's toothpaste reviewed in combination with a statistical tabulation of Minimum Lethal Doses of Fluoride Contained in One Tube of Colgate for Kids Toothpaste based upon the research of Whitford GM (1987), Fluoride in Dental Products: Safety Considerations, Journal of Dental Research.

Topical, the discussion is followed with the use of fluoride in dental products and their safety considerations from the Journal of Dental Research.

Appendix 3 (3 Case Studies)

Historical examples in which the government have ignored public health issues and / or lied to protect industrial interests.

(A) BSE (Mad Cow Disease)
(B) Smoking
(C) Asbestos

Appendix 4: Local Council Members and People to Contact

This short appendix is to remind council members that when it comes to civic welfare, the government in power do not have a good record associated with the implementation of public safety in counterbalance to industrial interests. The author of this report however is not advocating that the committee should ignore government commissioned studies, but it should in the wider general interest look at a broad range of research by independent scientists when reviewing all data. The intention of such scrutiny is to avoid possible bias that is counter to the public interest and detrimental to the management of risk.

General Bibliography Including Related Articles, Medical Papers and Books

A very general and broad overview covering recent scientific papers, books and articles that have over the years re-examined the toxicity of fluoride in drinking water.

(1)Introduction / A Short History of Fluoridation

A very complex field of research I have felt the need to write a short comprehensive report on the adverse effects of fluoride in water. This report is based upon scientific commissioned studies of low level exposure to fluoride within water supplies. The main reason for presenting this information to the board committee is that it is felt that the various reports commissioned by the government on fluoridation of water supplies do not reflect adequately the level of concern or the possible negative health effects associated with fluoridation of local water supplies. By providing the alternative viewpoint it is hoped that council members will get a balanced appraisal pertaining to the pros and cons of fluoride.

It is anticipated that based on the overwhelming evidence presented in this report that the council members will decide against the implementation of fluoridation of local water reserves. The research in this paper legitimately questions the prevailing orthodoxy that fluoride is safe for public consumption in small doses.

This information is taken from a wide range of sources from books and related articles. For council members interested in covering the extensive history regarding the industrial and pharmaceutical connection to fluoride and its commercial influence upon medical research, including the steering of public policy, it is advisable that you consult the excellent book The Fluoride Deception by the BBC award winning journalist and producer Christopher Bryson.

At the end of this document there is a listed bibliography of journals, papers, medical studies and books on the subject, detailing the deleterious effects of fluoride on the human organism and the environment. This list is by no means definitive and constitutes a small minority of medical studies questioning the efficacy of fluoridation and potential effects of fluoride poisoning.

A Short History of Fluoridation

It is generally thought by medical historians that industry and the fluoridation of water are in no way connected, and is an assumption that is provably incorrect. Example of the contiguity of corporate interests and research into fluoride is embedded in the early commissioned reports justifying the argument for the widespread fluoridation of water in the United States.

There were a number of government funded papers produced perhaps the most influential of these is Irene Campbell's report:

The Role of Fluoride in Public Health, The Soundness of Fluoridation of Communal Water Supplies. Cincinnati, 1963

This document was one of several upon which the whole edifice of fluoridation and its benefits for public oral hygiene was promoted. It was funded and carried out by the phosphate industry and in particular produced in association with the assistance of Kettering Laboratories. More significantly the research was sponsored by the following companies:

Aluminun Company of America ACCOA

Aluminium Company of Canada

Dupont

Kaiser Aluminium

Reynolds Metals

US Steel

The Campbell Report was one of several important studies that was used to spearhead public policy and debate around fluoride and its safety for general consumption in the US. The science of fluoride and its advantages for public health is founded primarily upon evidence supplied by the industry leaders that are responsible for producing the world's supply of fluoride (a toxic by-product from the production of aluminium). The vast majority of research on the 'benefits' of fluoride has worked upon the priori that this compound is 'safe' and is non-detrimental to health in low doses a consensus that has been propagated primarily by the manufacturers of steel and aluminium.

The dental and medical profession, from which these early reports have had global ramifications, are in urgent need of reviewing the science behind much of this early and obsolete material. More importantly, the appraisal of scientific data from the 60s and 70s comparative to the contemporary evidence to date is imperative and is a matter of public interest.

Furthermore many of the current health studies in the US and UK are commissioned and based upon vested commercial interests. More detailed information on the underhandedness of corporate business and fluoride is contained in Christopher Bryson's excellent book 'The Fluoride Deception'.

For a short historical synopsis of the government's role and its affiliation to industrial leaders, particularly with reference to the intentional misleading of the general public on health issues, please refer to Appendix 3.

The tide on fluoride and its perceived pharmaceutical effects within modern science is beginning to be questioned and is slowly changing. With so many scientific studies that are now published across the world looking into the potential hazards of fluoridation, there is compelling evidence to show that the substance is dangerous and can compromise health at infinitesimal levels.

Semiotics and the Implementation of Language to Propagate Policy on Fluoridation

Before moving on to discuss fluoride and its determined pernicious health implications, I first of all wish to draw attention to the usage of preset language to frame public discourse. In light of new developments into modern research concerning fluoride and its negative effects physically, the government's response has been remarkably sedated. In addition it appears that the health authorities have adopted fixed countermeasures in their eagerness to protect the fluoride industry. This includes the reporting of the substance within the media and civil service and their implementation of very specific language. The direct intention of this planned manoeuvre is to mitigate or refute scientific arguments relating to the adverse exposure of fluoride and its associated risks.

In several recent government disclosures on fluoride and funded research, the words 'best science' and 'best evidence' are used indiscriminately to describe the current or prevailing attitude that gives grounds for fluoridation. The connotation derived from the government's language is that the vast amount of studies that have questioned fluoride's safety and its level of toxicity is by definition questionable and not factually based. Put simply, the data presented by the government is scientifically sound, and the remainder of the published studies are inferior. In other words, scientific reports that dismiss fluoridation or highlight potential risks are methodologically or qualitatively defective. At this stage I would ask the commission to be very cautious in its use of jaundiced language.

If, for example, we look carefully at the terminology employed in relation to the toxin fluoride, we can see a subtle move in the pharmaceutical industry to re-categorise the compound as a 'supplement' and thereby subtly draw an inference that the substance is a type of 'vitamin' or 'mineral' that is required by the body for the promotion or development of healthy teeth and bones etc. This is quite the opposite and is a misleading deception. Similarly, the proposal that water fluoridation is a 'treatment' or a 'medication' is also disingenuous in that the statement implies that the agent has 'therapeutic properties' – and when viewed

in context to the caseload of evidence is demonstrated to be a tenuous argument. (See references at the end of this report, for a quick overview of scientific studies that have been compiled on the injurious effects of fluoride in water).

The vast amount and weight of studies in general show fluoride to be a dangerous toxin. For unequivocal evidence that fluoride is dangerous refer to Professor Stephen Peckham, Centre for Health Service Studies, and his important research paper that comprised of the first comparative statistical study of its kind on fluoridation in the UK (See Section 2).

In summing up this short introduction, the water authority has a legal care of duty to its citizens. In context to Wakefield authority, you have a wider obligation to look at all of the evidence at hand and this does not just mean 'selecting' evidence from the government's own advisory bodies on the safety of fluoride.

The point in question regarding the dissemination of government policy needs to be clearly addressed in context to the wider implications of the fluoride issue. It should be emphasized at this preliminary stage that mistakes by local authority committee members tasked with regulatory safety will be liable for prosecution. Automatic immunity from litigation is not conferred through being aligned to the government and its medical committees, rather it is aligned to the weight of evidence. As a private company Yorkshire Water with board members and listed stock options are well aware of the possibility of lawsuits at both a National and European level of ruling.

This report will clearly demonstrate compelling evidence that is current and exists in the public domain of the possible and numerous adverse side effects of fluoride. Corroborated through many scientific journals the evidence quoted in this document is counter to the government's own official position that fluoride presents no appreciable risk. To emphasize, the studies in this report are founded upon scientific data that is cross referenced with other academic studies completed throughout the world. The conclusions are unanimous and show emphatically that there exist multiple problems with fluoride.

Up to date, there are innumerable studies, and in the course of this document council members will be made aware of the latest scientific research that questions the prevailing viewpoint that fluoride is beneficial or safe for public consumption. The onus is upon the regulatory bodies to show that fluoride is not a threat to the public, and thereby negate the commissioned studies that prove the dangers of fluoride. I will now present the evidence and let the data speak for itself:

(2) The British Study and Evidence that Fluoridated Water Leads to an Increased Susceptibility to Thyroid Damage (Professor Stephen Peckham)

According to Professor Stephen Peckham, Centre for Health Service Studies, University of Kent, 15,000 people are needlessly suffering from thyroid problems because of fluoride in drinking water (2012-2013). In his recent study the scientist demonstrates that the data suggests that fluoride is linked to depression and weight gain. The conclusion of his study is that local councils should immediately stop adding the agent to drinking water.

His research is the first and most comprehensive study and looked at 98 per cent of General Practices (GP) in England, and found unequivocally that high rates of underactive thyroid were 30 per cent more likely in practices located in areas with fluoride levels in excess of 0.3 mg/l. The researchers compared areas to records from 7,935 General Practices covering around 95 per cent of the English population in 2012 to 2013. The report demonstrates that there are major spikes in the number of cases of underactive thyroid in high fluoridated regions such as the West Midlands and the North East of England. Lead author Professor Stephen Peckham, Centre for Health Service Studies, said:

'I think it is concerning for people living in those areas'…The difference between the West Midlands, which fluoridates, and Manchester, which doesn't was particularly striking. There were nearly double the number of cases in the West Midlands… Underactive thyroid is a particularly nasty thing to have and it can lead to other long term health problems. I do think councils need to think again about putting fluoride in the water. There are far safer ways to improve dental health'.

Professor Stephen Peckham, Centre for Health Service Studies

Previous studies have also found that fluoride inhibits the production of iodine, which is essential for a healthy thyroid (See Section 5 & 3 of this report – the Harvard study and the National Academy of Science report NAS). Professor Stephen Peckham has denounced fluoridation in his review and maintains that local authorities must urgently rethink their public health policies due to the adverse health effects of fluoride.

(3) Dentistry and Concerns about Fluoride and its Efficacy

(Evidence presented in the Southampton case that successfully prevented the local authority from dumping fluoride into the regional water reserves) by Dr. Hardy Limeback PhD, DDS, University of Toronto (Abridged statement):

I am the Head of Preventive Dentistry at the University of Toronto in Toronto Canada, a professor with a PhD in Biochemistry and a practicing dentist who has done years of funded research in tooth formation, bone and fluoride. I was one of the 12 scientists who served on the National Academy of Sciences panel that issued the 2006 report, 'Fluoride in Drinking Water: A Scientific Review of the EPA's Standards'. I would like to outline my arguments that fluoridation is an ineffective and harmful public health policy.

(1) There are numerous modern studies to show that there no longer is a difference in dental decay rates between fluoridated and non-fluoridated areas, the most recent one in Australia (Armfield & Spencer, 2004 Community Dental Oral Epidemiology. 32:283-96). Recent water fluoridation cessation studies show that dental fluorosis (a mottling of the enamel caused by fluoride) declines but there is no corresponding increase in dental decay (e.g. Maupome et al 2001, Community Dental Oral Epidemiology 29: 37-47).

(2) Since the majority of daily fluoride comes from the drinking water in fluoridated areas, the risk for dental fluorosis greatly increases (National Academy of Sciences: Toxicological Risk of Fluoride in Drinking Water, 2006). The American Dental Association and the Dental Forum in Ireland has admitted that fluoridated tap water should not be used to reconstitute infant formula.

(3) The more severe forms are associated with an increase in dental decay (NAS: Toxicological Risk of Fluoride in Drinking Water, 2006) and the psychological impact on children is a negative one Dental fluorosis can be reduced by turning off the fluoridation taps without affecting dental decay rates (Burt et al 2000 Journal of Dental Research 79(2):761-9).

(4) There is more than enough evidence to show that even this fluoride has the potential to promote cancer.

(5) ***Cancer:*** *Osteosarcoma (bone cancer) has recently been identified as a risk in young boys in a recently published Harvard study (Bassin, Cancer Causes and Control, 2006). The author of this study, Dr. Elise Bassin, acknowledges that perhaps it is the use of these untested and contaminated fluorosilicates mentioned above that caused the over 500% increase risk of bone cancer.*

*(6) **Bone fracture:** Drinking on average 1 liter/day of naturally fluoridated water at 4 parts per million increases your risk for bone pain and bone fractures (National Academy of Sciences: Toxicological Risk of Fluoride in Drinking Water, 2006).*

*(7) **Adverse thyroid function:** The recent National Academy of Sciences report (NAS: Toxicological Risk of Fluoride in Drinking Water, 2006) outlines in great detail the detrimental effect that fluoride has on the endocrine system, especially the thyroid.*

*(8) **Adverse neurological effects:** In addition to the added accumulation of lead (a known neurotoxin) in children living in fluoridated cities, fluoride itself is a known neurotoxin. We are only now starting to understand how fluoride affects the brain. Several recent studies suggest that fluoride in drinking water lowers IQ (NAS, 2006),*

In my opinion, the evidence that fluoridation is more harmful than beneficial is now overwhelming and policy makers who avoid thoroughly reviewing recent data before introducing new fluoridation schemes do so at risk of future litigation.

Dr. Hardy Limeback PhD, DDS
Associate Professor and Head, Preventive Dentistry University of Toronto

The last point Dr Hardy Limeback makes is particularly relevant regarding litigation, the data we have now is explicitly clear and shows that fluoride is a dangerous ingredient that affects cancer rates, thyroids problems, and neurological issues including decreased brain function (see the Mexican study, section 8 of this report and Dr Burk's National Cancer Testimonial before Congress, section 10). In relation to Wakefield council and its consultation period, it is clear that Wakefield authorities are monitoring public opinion on whether the council should flagrantly disregard the scientific evidence and thereby negotiate public policy that effectively breaks the law.

Dr Hardy Limeback, Head of Department of Preventative Dentistry for the University of Toronto, and President of the Canadian Association for Dental Research has also made a number of other interesting statements on the issue of fluoride. In one press release the Doctor advocated extreme caution using fluoride and he cited that general exposure should be avoided for small children, to quote:

'Children under three should never use fluoridated water, toothpaste or drink fluoridated water, and baby formula must never be made up using Toronto tap water – Never!'

Dr Hardy Limeback,
Head of Department of Preventative Dentistry for the University of Toronto

To summarise, a study at the University of Toronto revealed that people in cities with fluoridated water supplies have double the fluoride in their hip bones compared with non-fluoridated area. In the words of Dr Limeback, fluoride was changing the '*basic architecture of human bones'.*

Significantly, Dr Limeback has also noted that although Toronto drinking water has been fluoridated for more than forty years Vancouver which has never fluoridated its water supplies have lower cavity rates than in the city of Toronto. He said that cavity rates are low all across the industrialised world – including Europe which is still largely fluoride free. According to Dr. Limeback:

'Those who continue to promote fluoride are working with data that is fifty years old and questionable at best. The dentists have absolutely no training in toxicity… Your well intentioned dentist is simply following fifty years of misinformation from public health and dental association. Me too, unfortunately, we were wrong… Poisoning our children was the furthest thing from my mind… The truth was a bitter pill to swallow, but swallow it I did'.

On the subject of fluoride used by the public health agencies in drinking water, he has noted the following important points:

'It is not only that we are drinking sodium fluoride, we are getting all the other intoxicants from the aluminium industry too… Certainly the crowning blow was the realisation that we have been dumping contaminated fluoride into water reservoirs for half a century. The vast majority of all fluoride additives come from Tampa Bay, Florida, smokestack scrubbers. The additives are a toxic by product of the super-phosphate fertiliser industry.

Tragically, that means we're not just dumping toxic fluoride into our drinking water. We are also exposing innocent, unsuspecting people to deadly elements of lead, arsenic, and radium, all of them are carcinogenic. Because of the cumulative properties of toxins, and detrimental effects on human health the effects are catastrophic'.

Dr Limeback's views are lucid and intelligently expressed, and more importantly are evidentially based upon scientific material. Extensive, Dr. Limeback's research however is not the only voice expressing concern relating to fluoridation schemes and their effects on public health. To give a local perspective, the same

academic position is stated also by the prominent Dr. Peter Mansfield, a physician from the UK and advisory board member of the relatively recent government review on fluoridation (McDonagh et al 2000). His viewpoint gleaned upon all of the medical research is unambiguous:

'No physician in his right senses would prescribe for a person he has never met, whose medical history he does not know, a substance which is intended to create bodily change, with the advice: Take as much as you like, but you will take it for the rest of your life because some children suffer from tooth decay. It is a preposterous notion'.

On the issue of fluoride in toothpaste and its relatively high toxicity in humans see the manufacturer's own instructions (Crest) on brushing children's teeth at the end of this document and table of infant mortality (Appendix 2).

(4) Industrial Problems

This section will look at a variety of sources and quotations that document the toxicity of fluoride within industry and the environment in general. A short summary of evidence, it is by no means comprehensive but it does present a general overview of problems that are associated with fluoride and its toxicity within industry in conjunction to the environment.

'Certainly there has been more litigation on alleged damage to agriculture by fluoride than all other pollutants combined'.

Dr Leonard Weinstein, Carnel University, 1983

'Air born fluorides have caused more worldwide damage to domestic animals than any other air pollutant'.

US Department of Agriculture, 1970

'Between 1957 and 1968 – fluoride was responsible for more damage claims against industry than all twenty nationally monitored air pollutants combined'.

Dr Edward Groth, Senior Scientist, Consumer Union

'Very few dentists are aware that fluoride in public water supplies is not a pharmaceutical grade product, but is an industrial waste from the phosphate industry'.

Christopher Bryston, The Fluoride Deception, 2004,
Award Winning Journalist and Producer from the BBC

The Environment Protection Agency (EPA) Employee Union in the US (consisting of approximately 1,500 scientists, lawyers, engineers and other professional employees) is opposed to water fluoridation. They object to fluoride due to:

'…the lack of benefit to dental health from ingestion of water fluoride and the hazards to human health from such ingestion'.

Hirzy, W., 'Why EPA's Headquarters Professional Union Opposes Fluoridation, May 1, 1999, [article]

(5) Developmental Toxicity of Fluoride and its Related Effects upon Children and Emergent IQ

As of writing this report in late August 2015, a total of 50 studies have investigated the relationship between fluoride and human intelligence, and a total of 34 studies have examined the link between fluoride and learning / memory in animals. Of these investigations, 43 of the 50 human studies have found that elevated fluoride exposure is associated with reduced IQ. In addition 32 of the 34 animal studies have found that fluoride exposure impairs the learning and /or memory capacity of animals. The human studies, which are based on IQ examinations of over 11,000 children, provide persuasive evidence that fluoride exposure during the early years of life can damage a child's developing brain.

After reviewing 27 of the human IQ studies, a team of Harvard scientists concluded that fluoride's effect on the young brain should now be a *'high research priority'*. (Choi, et al 2012). Other reviewers have reached similar conclusions, including the prestigious National Research Council (NRC), and scientists in the Neuro-Toxicology Division of the Environmental Protection Agency (Mundy, et al).

Second, and perhaps even more troublesome the association between fluoride and reduced IQ in children is predicted by, and entirely consistent with, a large body of other evidence. In addition, animal studies have repeatedly found that fluoride impairs the learning and memory capacity of rats under carefully controlled laboratory conditions. An even larger body of animal research has found that fluoride can directly damage the brain, in a study under Dr. Mullenix, former leading toxicologist at the Forsyth Dental Centre, Harvard Affiliated. Dr. Mullenix stated:

Neurotoxicity of Sodium Fluoride in Rats

'The pattern that we saw typically is what we see with other neuro-toxic agents that are well known to cause hypo-activity or a memory problem or an IQ problem. When I first presented the results of the studies to one of the chief scientists sitting and listening to the results, he said "Do you have any idea of what you are saying. You are telling us that we are reducing the IQ of children", and basically I said "yes"…'.

Dr. Mullenix, Leading Toxicologist, Forsyth Dental Centre (Harvard Affiliated)

In the Forsyth Dental Centre study, a Harvard affiliated organisation, Dr. Mullenix developed new methods for sampling brain tissue to analyse neurological damage. In addition, similar findings have also been confirmed in studies of aborted human foetuses from high-fluoride areas (See Bibliography including related listed scientific papers on fluoride and its evidence of neuro-toxicity at the end of this report).

Summary

When considering research with numerous animal studies, it is very unlikely that the 43 human studies finding associations between fluoride and reduced IQ can all be down to a random fluke. The question today, therefore, is less whether fluoride reduces IQ, but at what dose, and how this dose and time varies based on an individual's nutritional condition, health status, and exposure to other contaminants (e.g., aluminium, arsenic, lead, etc). Other serious concerns include fluoride's effect on children born to women with suboptimal iodine intake during the trimester of pregnancy, and/or fluoride's effects on infants and toddlers with suboptimal iodine intake. Further human studies (The Mexican Study, Section 8), for example, have found associations between fluoride and neuro-behaviour in ways that are consistent with fluoride being a neurotoxin.

(6) General Studies Appertaining to the Brain and Nervous System including Internal Organs and the Detriment of Fluoride

The purpose of this section within the 'Wakefield Report' is to look critically into the fluoridation of water and its potential impact. The aim is to cite a cross selection of current and up to date scientific papers. Diverse, many of these separate studies incontrovertibly demonstrate fluoride's toxicity on the body's internal systems including the major organs and nervous systems. Evidence of fluoride's destructive effects on the brain and central nervous system continues to mount. Among animal studies, chronic fluoride exposure in rats has been

found to result in: detrimental changes in the sciatic nerve, spinal cord, and hippocampus and neo-cortex of the brain (Reddy et al., 2011); changes in the expression of several brain proteins, including those involved with cell signalling, energy metabolism, and protein metabolism (Ge et al., 2011); and changes in the structure and function of the synaptic interface, which would likely result in altered transmission of neural information (Zhu et al., 2011). In the widely publicized Valdez-Jiménez study (2011), the researcher argued that:

'The prolonged ingestion of fluoride may cause significant damage to health and particularly to the nervous system. Therefore, it is important to be aware of this serious problem and avoid the use of toothpaste and items that contain fluoride, particularly in children as they are more susceptible to the toxic effects of fluoride'. Spittle (2011) also concluded that *'there is no threshold for fluoride neurotoxicity in drinking water, and the only assuredly safe level is zero'.*

Valdez-Jiménez L, Soria Fregozo C, Miranda Beltrán ML, et al. 2011.Effects of the fluoride on the central nervous system.Neurología 26(5):297-300.

In addition to neurological damage, medical studies published throughout the world have also found that exposure to fluoride can lead to:

- Structural damage of the renal cortex in the kidneys of female mice (Abdo et al., 2011).
- Reduced viability of bone-forming cells (osteoblasts) (Yang et al. 2011).
- Reduced ability of bone cells (osteocytes) to respond to mechanical usage (Willems et al., 2011).
- Insulin resistance in rats (Lupo et al., 2011). These rats had a plasma fluoride level similar to those found in humans consuming an "average" amount of fluoride from fluoridated water and other sources (EPA, 2010).
- Dental fluorosis, signifying fluoride overexposure (Leite GAS, et al. 2011).
- Exposure to high fluoride concentrations in drinking water is associated with decreased birth rates. (Freni SC., 1994).

(7) Foetus Damage and Fluoride

Studies in China have shown without doubt that the passage of fluorine through the placenta of mothers with chronic fluorosis and its accumulation within the brain of the fetus impacts the developing central nervous system. In addition the accumulation of fluoride stunts neuron development, to quote this time the Chinese Journal of Pathology:

'Fluoride damage to cell structures was multifaceted. Cell membranes, mitochondria, rough endoplasmic reticulum, and nuclear membranes could all be damaged at the time of fluorosis'.

SOURCE: Du L. (1992), The Effect of Fluorine on the Developing Human Brain, Chinese Journal of Pathology 21 (4): 218-20; Republished in Fluoride 2008

(8) Neuro-Toxin Effects of Fluoride (The Mexican Study)

A large base study in Mexico found evidence that fluoride inhibits intelligence. In addition to assessing the effect of fluoride on IQ, the Mexican team studied the effect of arsenic (i.e. a by-product of fluoride waste) as well and found similar results. Based on their data, the authors concluded that:

'Fluoride and arsenic in drinking water have a potential neuro-toxic effect in children. It is urgent that public health measures to reduce exposure levels be implemented. Millions of people around the world are exposed to these pollutants and are therefore potentially at risk for negative impact on intelligence. This risk may be increased where other factors affecting central nervous system development, such as malnutrition and poverty, are also present. The risk is particularly acute for children, whose brains are particularly sensitive to environmental toxins. Furthermore, it would be advisable to re-examine the benefits of fluoride given the documented health risks'.

Valdez-Jiménez L, Soria Fregozo C, Miranda Beltrán ML, et al. 2011, Effects of the fluoride on the central nervous system.Neurología 26(5):297-300.

(9) British Medical Journal – No Proper Review of Fluoride

According to the British Medical Journal review, the evidence underpinning water fluoridation is of 'poor quality'. Indeed, if fluoridated water were defined as a medical treatment, there would be insufficient evidence to justify its continuation. In the United Kingdom, the National Health Service (NHS), Centre for Reviews and Dissemination University of York, published a systematic review of water fluoridation in the year 2000. In its summary of evidence, the authors of the report conceded:

'If fluoride is a medicine, evidence on its effects should be subject to the standards of proof expected of drugs, including evidence from randomized trials… There have been no randomized trials of water fluoridation…Given the level of interest surrounding the issue of public water fluoridation, it is surprising to find that little high quality research has been undertaken'.

The National Health Service (NHS), Centre for Reviews and Dissemination, University of York, summary 2000.

This statement from the University of York articulates a very astute and coherent point from which the health services allude, but underlying the NHS' level of concern and its critique of science methodology highlights a statement that is potentially spurious. My question to the National Health Service is why would you in the first place want to conduct randomised studies on healthy people with a known toxin? On the subject of why no proper studies have been done, the evidence to date, suggests that such a proposal would be both unethical and also illegal (Refer once again to Professor Stephen Peckham's study – that demonstrates the neuro-toxicity of fluoridated water. Proposals of such studies under the EU Drinking Water Directive (98/83/EC) is a breach of European law, and additionally is in violation of the Human Rights Article Resolution 64/292.

(10) Fluoride and the Cancer Link - Dr. Dean Burk, National Cancer Institute Testimonial Before Congress

Lastly, Dr. Dean Burk a highly respected chemist who worked for the National Cancer Institute testified before Congress in 1971 that he believed fluoridation to have caused about ten per cent of all cancer deaths. That is approximately 61,000 people per year. If this figure is correct then we should see in Wakefield a similar rise in cancer cases. Dr. Dean Burk PhD an early practitioner of the prestigious American Cancer Institute and member for 34 years stated:

'In point of fact, fluoride causes more human cancer death, and causes it faster than any other chemical'.

Dr. Dean Burk PhD, National Institute of Cancer, Testimonial Before Congress 1971

These early concerns are also reflected in contemporary journals in the 2006 study by Elise Bassin a peer reviewed paper that was published in the journal Cancer Causes and Control, which found an increased risk for osteosarcoma (an aggressive form of bone cancer) in boys exposed to fluoridated water in their 6th to 8th years (Bassin et al., 2006).

On a side note, as a parent myself with a 7 year old boy, the thought of increasing my own son's risk of bone cancer by 500% through drinking fluoridated water is a frightening prospect – luckily for Wakefield and its wider community, this risk is easily rectified, put simply don't pollute the water with a known carcinogen.

Once again all of these studies on fluoridated water and its known repercussions on human health, intrinsically questions the legality of Wakefield's proposals for fluoridation which essentially constitutes conspiracy to commit criminal and wilful damage, including grievous physical harm.

By this definition the 'consultation process' itself falls into danger of being unlawful and from a legal position is tenebrous. These are serious allegations and more so because we know of the health implications associated with water fluoridation that has been systematically documented in dozens of case studies throughout the world.

Conclusion

Yorkshire Water are legally obligated under the Water Quality Laws Directive to ensure that water is clean and free of pollution – What the Law States:

Water Quality Laws Directives (West Yorkshire Local Authority and Quality of Water)

Strict standards for the quality of the UK public supply are laid down in national regulations derived from the EU Drinking Water Directive. These standards are based on advice from the World Health Organization (WHO) and are regularly reviewed. In the UK, all drinking water, whether from public supplies or other sources, has to meet standards laid down in the EU Drinking Water Directive (98/83/EC). It is the duty of each EU member state government to translate the requirements of the directive into local laws, which must as a minimum meet the requirements of EU legislation.

The law requires that drinking water is 'wholesome and clean'. It also sets down maximum acceptable concentrations for a number of potential contaminants. In addition, there is a general clause, which requires:

'Water is free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health'.

EU Drinking Water Directive (98/83/EC)

Note here that the UK Directive states *'any substances which constitutes a potential danger to human health'.* The requirement in this mandate is explicit the stipulation does not state 'absolute risk to human health' only 'potential danger'. Fluoride is an agent which has been proven medically and scientifically to fall into the bracket of a 'health risk' and is technically designated as a 'potential danger'. On the evidence at hand, it is argued that if Wakefield Local Authority puts fluoride into the water under this Directive, it is by very definition illegal and constitutes a criminal offence. See also the Environment Protection Act 1990 below:

The Environmental Protection Act 1990:

This Act introduced two new pollution control systems:

1. Integrated Pollution Control (IPC).
2. Local Authority Air Pollution Control (LAAPC).

'Releases of the most polluting (prescribed) substances must be prevented or, where this is not possible, minimised and rendered harmless by applying Best Available Techniques Not Entailing Excessive Costs (BATNEEC)'.

The Environmental Protection Act 1990

In other words it is the local authority's responsibility to prevent or minimise exposure to pollution. By definition this act inhibits the pollution of water with contaminants. The legal argument to release fluoride and other related poisonous elements into the waterways is a major and fundamental dereliction of the local authority's basic care and duty. It is manifestedly clear that when we factor into the equation all of the new studies undertaken outlining the genuine concerns of fluoride on human health, the wilful act of tipping industrial fluoride into the local water supplies is under European Directive a punishable crime.

Human Rights

On 28 July 2010, through Resolution 64/292, the United Nations General Assembly explicitly recognized the human right to water and sanitation, and acknowledged that clean drinking water and sanitation are essential to the realisation of all human rights. In November 2002, the Committee on Economic, Social and Cultural Rights adopted General Comment No. 15 on the right to water. Comment No. 15 also defined the right to water as the right of everyone to sufficient, safe, acceptable and physically accessible and affordable water for personal and domestic uses. Article I.1 states that:

'The human right to water is indispensable for leading a life in human dignity. It is a prerequisite for the realization of other human rights. The water required for each personal or domestic use must be safe, therefore free from micro-organisms, chemical substances and radiological hazards that constitute a threat to a person's health'.

General Comment No. 15, Article I.1

Under European Law, the fluoridation of water is illegal by the stipulations set out by the commission that states water should not: '*constitute a potential danger to human health'.* In addition to the Human Rights Article, the paragraph refers to radiological hazards, with which industrial fluoride is known

to contain. For example, fluoride waste incorporates other contaminants including high levels of radium that are known to be a by-product of fluoride. It is also noted that during the fluoridation process that this and other dangerous elements are not separated from the industrial effluence.
The regulations are very clear under the Human Rights Articles, any attempt to fluoridate water constitutes a breach of law and is a criminal offence. This premise can be substantiated as follows: We can define water that is safe if it causes no harm or toxicological effects, and fluoride is proven to be a toxic agent and therefore poses a real and genuine risk. Refer to Professor Stephen Peckham's research, contained in Section 2 of this report: Fluoride Studies Covering 95 per cent of the Population in the UK Demonstrates a Correlation between Fluoride and an Underactive Thyroid.

To conclude, if Wakefield goes ahead with the fluoridation of local water supplies, this course of action is a breach both of the Human Rights Act and the European Directives on clean water. As already highlighted the largest study ever completed on fluoridation in the UK written by Professor Stephen Peckham demonstrated thyroid problems in regions of fluoridated water. Dr. Peckham's report currently contradicts the government's position that fluoride is safe. With so many studies now done into the dangers of fluoridation, there is strong and cogent evidence (beyond reasonable doubt) that fluoride in small doses can be extremely toxic to the human organism. (See references at the end of this report, detailing numerous scientific papers that confirm the medical proposition regarding fluoride and its recorded toxicity).

The 'best science' to date does not support the council's decision to fluoridate water, and if it continues down the path of fluoridation, it will be breaching National and International Law. Wakefield Council as a legal care of duty to its citizens and it should therefore speak directly to Professor Stephen Peckham to discuss the health implications that are currently published by the University of Kent. This is a matter of urgency and failure to do so runs the real risk of negligence and judicial proceedings against the council in light of new medical evidence.

To reiterate, if Wakefield decides to press ahead with fluoridation, then it will have to demonstrate that Professor Stephen Peckham's study and its conclusions are not factually based. The same goes realistically for Dr. Hardy Limeback's research that conclusively establishes a lack of evidence for the fluoridation of water and the prevention of tooth decay. Dr. Limeback also highlights serious risk factors in his study that should be taken into consideration. If these studies are neglected, put simply the council and the local water authorities will be breaking European Law and will be subject to prosecution under the Water

Regulation Act of 2003. In addition, the author of this report feels that the consequences would open up legal challenges throughout the UK and European territories and lead to a complete ban on fluoride throughout Europe. The position for fluoridation is not medically justified and furthermore, due to the inherent and proven risks, is illegal.

To emphasize, ultimately the onus and burden of proof remains on the water companies and the phosphate industries to prove that fluoridation is safe. Furthermore this evidence should come from scientific agencies that are agnostic and not affiliated to the industrial or chemical sector. With regards to the issue of probable doubt, if controversy exists in the public and academic sphere regarding the level of danger equated with fluoridation, then the local authorities should by law desist in their pursuit of this policy.

If Yorkshire Water continues with the planned strategy to fluoridate local water, it will by definition of the law be committing a serious criminal offence. The amount of documentation in the public domain proves beyond reasonable doubt that there are general concerns for health and public safety pertaining to levels of fluoride in drinking water. Dumping toxic waste therefore into water contravenes the Human Right Act Resolution 64/292. The question then is not how safe fluoride is? Rather – How much of a health risk does fluoride present to the local population?

In conclusion, the fact that fluoride is deemed as controversial in the scientific community effectively means that its safety record cannot be assured and at best is dubious and therefore by de facto the committee members are at liberty to protect the public from 'possible injury', put in the words of EU Drinking Water Directive (98/83/EC) – *'substances which… constitute a* potential danger to human health'. In this current climate, you cannot guarantee fluoride to be a benign substance as it is known to be a potent toxin associated with chronic health risks (See Statistical and Evidential Reports of Professor Stephen Peckham, Centre for Health Service Studies and separate Referenced Articles at the end of this study).

Under a fluoridation scheme, the Local Authority can only minimise the population's exposures to risk by adjusting dosage, a policy that when considered overall in context to the larger public concern is neither acceptable nor legal, to recap:

'Water [should be] free from any micro-organisms and parasites and from any substances which, in numbers or concentrations, constitute a potential danger to human health'.

EU Drinking Water Directive (98/83/EC)

In summary, the policy of fluoridation should not be a social experiment and if there exists danger that is real or even 'potential' concerning the effectiveness or safety of fluoridation, then it is the Local Council's legal responsibility to caution against potential risk. The fact that the government is actively monitoring fluoridated areas and compiling statistical information further proves that the policy of 'treating' water and documenting its causal effects upon the human subject is operating covertly as a large-scale medical 'trial', a national strategy that is both unethical and under the Human Rights Act illegal. The European Convention on Human Rights imposes an obligation on the State to protect life:

Article 2 (1)

'Everyone's Right to Life Shall be Protected by Law'.

European Convention on Human Rights, Article 2 (1)

Put into perspective the public authorities must consider the 'Right to Life' when making decisions that might put local citizens in danger or affect their life expectancy. In local regions that fluoridate, water companies are mandated to produce science reports on the 'effects' of fluoridation on human health, a scheme that in itself is repugnant and highly indicative of a 'pilot study' on the British population that has no consensus and is illegal, to quote the 2003 Water Act Review of Fluoridation Section 58 Part 1 (a) and (b):

(1) A relevant authority which has entered into arrangements under section 87(1) [e.g. the jurisdiction to fluoridate water]… shall –

(a) Monitor the effects of the arrangements on the health of persons living in the area specified in the arrangements; and
(b) In accordance… [shall] publish reports containing an analysis of those effects.

Water Act 2003 Review of Fluoridation Section 58 1 (a) and (b)

Shameful, the legislation in effect specifies the Authorities to commission a large comparative study into the effects of fluoridation of water on local populations, and given the inimical nature of the article, perhaps what is even more alarming is the following incurred proposal contained in the 2003 Water Act Review of Fluoridation Section 58 Part 5 and 6 the article states:

(5) The relevant authority shall publish a further report under subsection (1)(b) above within each period of four years beginning with the date on which their last such report was published.

(6) This section ceases to apply in relation to any arrangements under section 87(1) [see below]… if those arrangements are terminated.

Water Act 2003 Review of Fluoridation Section 58 (5) and (6)

Put in layman's terms, the Authorities shall publish reports on fluoridation covering the issue of health over a continual four year cycle, but if for whatever reasons the projected fluoridation plan ceases, then there shall be no follow up reports on water purity, the environment or human health. Succinctly, the enactment enforces the direct termination of local studies into the potential harmful effects of fluoride, and cynically attempts to minimise criticism of Local Authorities, whilst mitigating litigation and resultant publicity. For example, in a case of mass poisoning, the Authorities could stop Yorkshire Water from continuing fluoridation, but there would be no subsequent studies or publications disclosing environmental or human reverberations.

This then leads on to the relevant discussion of who is responsible for the safeguarding of the environment and local wellbeing. Strong evidence in the 2003 Water Act exists that demonstrates the water companies themselves are not satisfied with the government's explanations that fluoridation is suitable for public consumption and is contained in the redrafted articles of the 2003 Water Act Sections 87 and 90, they state:

Section 87 Fluoridation of Water Supplies at Request of Relevant Authorities

(1) If requested in writing to do so by a relevant authority, a water undertaker shall enter into arrangements with the relevant authority to increase the fluoride content of the water supplied by that undertaker to premises within the area specified in the arrangements.

(2) But a water undertaker shall not be required [to fluoridate] by subsection (1) above to enter into any such arrangements until an indemnity with respect to the arrangements has been given by virtue of section 90 [see below].

Water Act 2003 Fluoridation of Water Supplies at Request of Relevant Authorities Section 87 (1) and (2)

Section 90 Indemnities in Respect of Fluoridation

(1) The Secretary of State may, with the consent of the Treasury, agree to indemnify any water undertaker in respect of liabilities which it may incur in complying with arrangements entered into by it pursuant to section 87 (1) above [i.e. to fluoridate].

(2) The Secretary of State may also, with the consent of the Treasury, agree to indemnify any licensed water supplier in respect of liabilities which it may incur.

Water Act 2003 Indemnities in Respect of Fluoridation Section 90 (1) and (2)

Put simply this redrafted article exists, because there is a perceived risk, in the words of the Secretary of State: 'liabilities which may occur'. The water companies are aware of the mixed signals within the literature regarding fluoride, and we can summarise this dichotomy very neatly as follows:

(A) The government scientist and advisory bodies argue that fluoride is safe.

(B) Every other science journal and researcher in the world states the exact opposite and argues the malignancy of fluoride.

Problematic, the government's position of quoting data that is at odds with a vast body of knowledge in circulation documenting the adverse effects of fluoride is contradictory to science (For further information, see listed studies in my Reference section at the end of this document). In this report, I have tried to highlight sensibly as many of those increased risks, that is practical, including the documentation of elevated levels of bone cancer in children (Bassin EB. 2001) and thyroid problems (Du L. 1992). If such risks do not exist as maintained by the government's current position, remove section 90 of the 2003 Water Act and let the water companies evaluate for themselves the perceived financial risk. The current charter effectively compels water companies to add fluoride into the water,

'*If requested in writing to do so by a relevant authority, a water undertaker shall enter into arrangements with the relevant authority to increase the fluoride…'.*

Water Act 2003 Fluoridation of Water Supplies at Request of Relevant Authorities Section 87 (1)

Whist simultaneously giving them full indemnity to prosecution and fines…

'*The Secretary of State may also, with the consent of the Treasury, agree to indemnify any licensed water supplier in respect of liabilities which… may incur'.*

Water Act 2003 Indemnities in Respect of Fluoridation Section 90 (2)

The provision within law in Section 90 of the Water Act 2003 protects the financial wellbeing of the water companies at the expense of the general public. If water fluoridation is safe then 'liabilities' from the general public cannot occur and Yorkshire Water does not need a pledge of indemnity from the Secretary of State. In the use of language in law the term 'indemnity' is specific and is from the Latin etymology 'indemnis' (literally un-hurt) a derivative of the noun 'damnum' (loss, damage, harm, injury, misfortune, fine, penalty, or fault). Put concisely the Secretary of States has issued an edict that gives full legal and financial immunity to water companies that inadvertently 'hurt' or 'injure' their customers through introducing the legally defined limits of fluoride into public water.

The Secretary of State under the Articles of the Human Rights Act has to ensure *'Everyone's Right to Life [a promise that is] Protected by Law'.* To recapitulate, public authorities are at liberty to consider the 'Right to Life' when making decisions relative to the general population. In this document I have called to attention dozens of studies that question the prevailing convention that maintains 'fluoride is safe'. On the grounds of public safety, the Council should therefore recommend a policy of non-fluoridation a mandate that should extend indefinitely. This local policy should be based legally upon the parameters of 'potential harm' upon which there are legitimate grounds for concern and is prolifically documented in the science journals of fluoride literature. Of immediate concern, the Council should address in writing the following questions cited in Appendix 1. Please see next page:

Appendix 1: Important Questions that Wakefield Consultation Process Should Answer Before It Presides Judgement on the Issue of Fluoridation of Local Water.

(1) Wakefield County Council need to speak to both Professor Stephen Peckham and Professor Hardy Limeback as a matter of urgency.
(2) The Council members also need to discuss both with Professor Stephen Peckham and Professor Hardy Limeback, if there are further academic papers and / or studies conducted in the UK pertaining to health issues arising from the fluoridation of water.
(3) Is the Local Water Board going to dump industrial waste into the water?
(4) What other contaminants are in the fluoride mixture, and at what levels, for example arsenic or radium.
(5) Are there any long terms studies planned to monitor cancer rates and thyroid problems associated with fluoridation? According to the research of Dr. Dean Burk, a chemist from the National Cancer Institute, we would expect to see approximately a 10 per cent increase in cancer rates and Professor Stephen Peckham's studies have conclusively shown a 30 percent increase of clinical cases of underactive thyroid in fluoridated regions (See Section 2 of this report).
(6) Will there be any monitoring of children's IQ in the local area, in addition to observing pregnant women, and rates of miscarriages etc (Chinese Journal of Pathology, 21 (4): 218-20, 1992 & 2008).
(7) Will Wakefield Authority screen local pregnancy rates, as research has shown an increase in infertility in fluoridated regions?
(Freni SC., 1994, Exposure to High Fluoride Concentrations in Drinking Water is Associated with Decreased Birth Rates, Journal of Toxicology and Environmental Health, 42: 109-121).
(8) If there are considered to be long term health problems from fluoridation, are there any economical contingencies in place to meet this increase demand within the local health services and related authorities?
(9) Are the water companies profiting from fluoridation of local water supplies?
(10) If so how much are Yorkshire Water receiving – This data should be public knowledge.
(11) Who specifically receives the money for fluoridation schemes?
(12) Have there been any proper reviews of how fluoridation would for instance effect the local environment, food chain, and agriculture?
(13) Are there any safe checks in place with the assessment of accidental contamination of the environment and local population, to reiterate fluoride is an extremely poisonous substance?

(14)If we fluoridate water and consequently decide to reverse the local policy, is it possible to remove fluoride effectively from the contaminated water and would this decontamination be economically viable?

(15)Over time are the fluoride levels going to incrementally increase in our water supplies – who will monitor these levels?

(16)What fluoride ratio is going to be put into the water, how will it be rigorously monitored and enforced?

(17)Who is taking charge for the policy, for example who is legally culpable if fluoridation is shown to harm individuals and / or damage the environment. Making it clear from the onset that the Local Authority will sue individuals for damages if fluoridation is harmful will provide a strong deterrent to parties that otherwise might profiteer from fluoridation.

(18)Who gains financially from this policy and who stands to lose if the policy is shown to be ineffective or worst damaging to the health and the environment.

(19)With regards to the issue of fluoride that is a multi-billion pound industry, can we trust the government to be impartial in its interpretation of scientific data and additionally do parliamentarians have a history of telling the truth on issues of public safety pertaining to industrial interests (See Appendix 3).

(20)Are there any vested interests or industrial lobbyists that stand to benefit from the fluoridation of West Yorkshire water supplies? Have these groups or individuals been identified?

(21)What emergency plans does the Council have for decontaminating fluoridated water and removing toxins, in the advent of an accident?

(22)What health and safety measures are in place regarding the environment and is it possible to reverse or negate the damage or harmful effects of fluoride within the farming and agricultural sector?

(23)Has the Council undertaken any documented scientific studies regarding the issue of fluoride and its contamination of food stock and / or provisions via the Water Board?

(For further information on various scientific studies on fluoride particularly as a toxin, and its attribution to human disease, please refer to my list of scientific papers on fluoride at the end of this report).

What the Local Council and Yorkshire Water Must do!

In light of the 'best evidence' presented in this document by Professor Stephen Peckham, that reviewed 95 per cent of the British population and compared these figures between areas of fluoridation and non-fluoridation, you must diligently and objectively analyse this new material as a matter of urgent priority. Closing your eyes to the most recent data, and pretending it does not exist is a remiss of professional practice and codes of duty.

To be clear, falling back on outdated studies and repeating the government mantra "Everything is safe and effective. No need to worry" ad infinitum is neither 'best practice' nor legal. The scientific concerns I highlight in this document are real and should not be lightly dismissed.

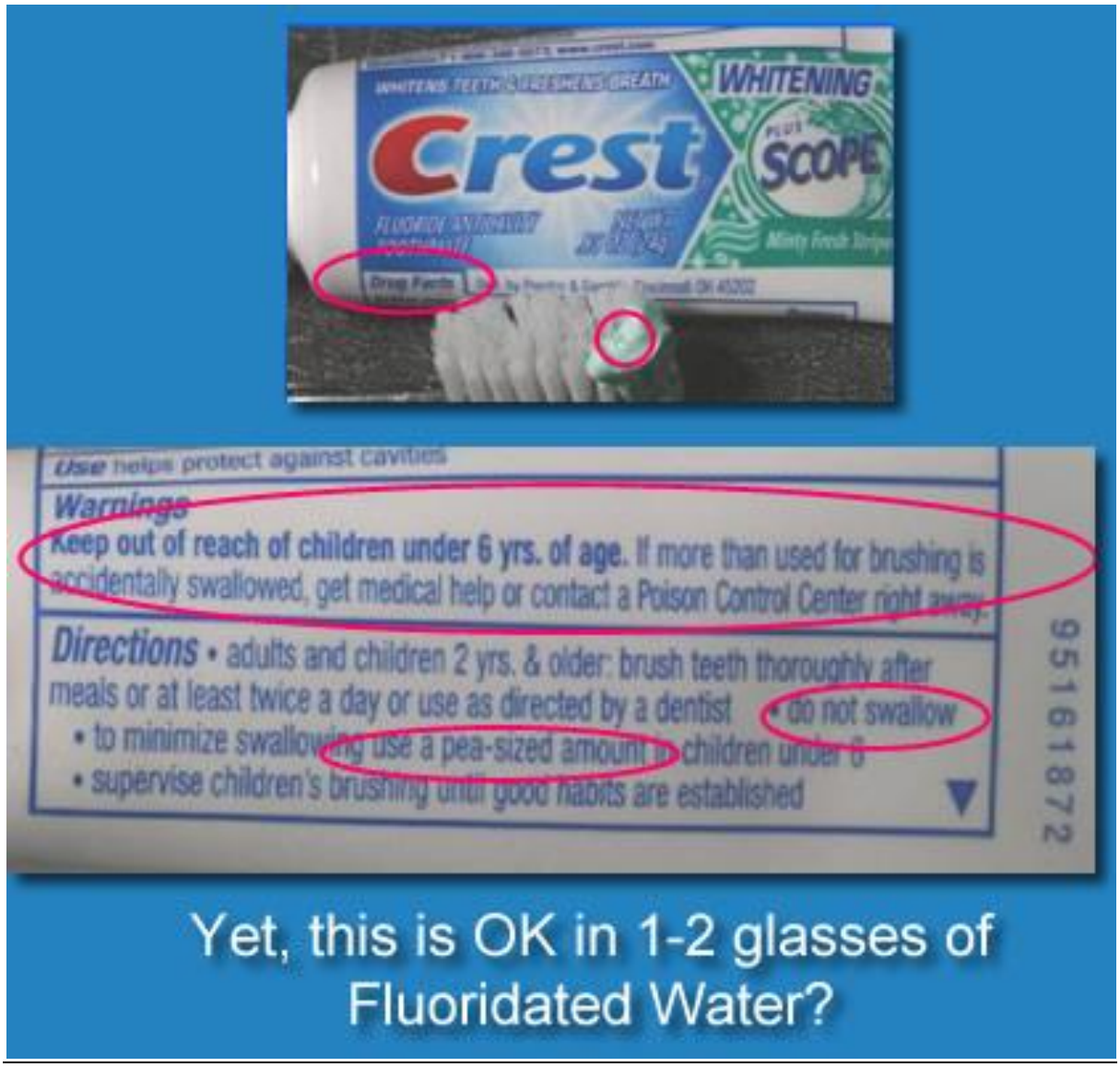
To repeat, the onus of proof is to establish that water fluoridation is safe. This document openly and lawfully questions that assumption and the prevailing senselessness of conforming to that position. Over the course of this report I have shown indubitably that controversy exists with reference to fluoride and its side effects in miniscule doses. To reiterate, if there is even the smallest of doubt concerning the safety of fluoride then the local authority must act on this information and actively halt the fluoridation scheme. From a legal perspective Yorkshire Council only have to possess a minimal cause for suspicion that fluoride can cause injury in small doses, to quote the EU Drinking Water Directive (98/83/EC) *'constitute a potential danger to human health'*.

To elucidate, if the Local Authority perceives that there is a 'potential danger to human health', and remember this is 'potential danger' not 'actual danger' – the regulatory members of the council must take countermeasures to protect their citizens as obliged by European Law. Professor Stephen Peckham and Professor Hardy Limeback's most recent and comparative research into fluoridation programmes makes it patently clear that there exists real and probable concern and it is therefore the responsibility of the Council to listen to those scientific solicitudes.

In this document the majority of information I have published is five years old and therefore contemporaneous to the review panel. The material presented before the Council members deals with scientific knowledge that is known about low exposure to fluoride and its harmful effects. Above all other considerations, the Local Council and Yorkshire Water are legally tasked with looking after the local welfare of citizens. It can be argued that 'no action' on this subject, in respect of the new evidence at hand, i.e. to let the policy of fluoridation slip through the local net without dissent from Council members is tantamount to

negligence. In addition such a cause of action would constitute a fundamental failure of professional duty and care to the people. As private citizens concerned about the local community and wishing to see that Wakefield and its municipal communities in the County of Yorkshire 'thrive', we will hold individuals legally accountable for their actions.

Appendix 2 : Fluoride Toothpaste



Fluoride Toothpaste

The minimum dose of fluoride that can kill a human being is currently estimated to be 5 mg/kg (5 milligrams of fluoride for each kilogram of body weight). This dose is referred to in the medical literature as the 'Probable Toxic Dose' or 'PTD'. The dose is sufficient to cause severe poisoning, and in the absence of medical

treatment, can be lethal. As noted by Dr. Gary Whitford, the PTD is the *'minimum dose that could cause toxic signs and symptoms, including death, and that should trigger immediate therapeutic intervention and hospitalization'.* (Whitford 1987). In the Journal of Dental Research, Whitford notes:

'This does not imply that this dose must result in death nor that a somewhat smaller dose would be innocuous. It does mean that even if it is only suspected that 5 mg F/kg has been ingested, it should be assumed that an emergency exists and that immediate treatment and hospitalization are required'.

SOURCE: Whitford GM. (1990). The physiological and toxicological characteristics of fluoride. Journal of Dental Research 69 (Spec Issue):539-49.

Dr. Gary Whitford Has Described the Sequence of Acute Fluoride Poisoning as Follows:

'When sufficiently large amounts of fluoride are ingested as a single dose, a catastrophic chain of events rapidly develops. The first effects experienced by the victim usually include nausea, vomiting, and burning or cramp-like abdominal pains. There may be excessive salivation and tearing, mucous discharges from the nose and mouth, a generalized weakness, paralysis of the muscles of swallowing, carpo-pedal spasms or spasm of the extremities, tetany, and generalized convulsions. The pulse may be thready or not detectable. Blood pressure often falls to dangerously low levels at some point during the course of the toxic episode. As respiration is depressed, a respiratory acidosis develops. Plasma potassium levels are elevated, indicating a generalized toxic effect on cell membrane function. Cardiac arrhythmias may develop in association with the hyperkalemia. Plasma calcium levels are typically depressed, sometimes to extraordinarily low values (5 mg% or less). Extreme disorientation or coma usually precedes death, which often occurs within the first few hours after the fluoride dose'.

SOURCE: Whitford GM. (1987). Fluoride in dental products: safety considerations. Journal of Dental Research 66: 1056-60.

The fact that 5 mg/kg is sufficient to cause fatality does not mean that doses lower than 5 mg/kg should be considered safe. Indeed, symptoms of acute fluoride toxicity (e.g., gastrointestinal pain, vomiting, diarrhoea, headaches) can be produced at doses far below quantities that kill. In 1980, for example, Dr. Spoerke showed that nausea, vomiting, and diarrhoea regularly occurred at dosages lower than 1 mg/kg. In 1982, Dr. Eichler demonstrated that dosages lower than 0.5 mg/kg caused nausea, vomiting, and fatigue.
In 1994, a study in the New England Journal of Medicine showed that dosages as low as 0.3 mg/kg caused nausea, vomiting, abdominal pain, diarrhoea, and

headache (Gessner 1994), and in 1997, Dr. Akiniwa discussed a range of studies where acute fluoride toxicity occurred at dosages as low as 0.1 mg/kg. Based on the current evidence, therefore, the minimum dosage that can induce symptoms of acute fluoride toxicity appears to be 0.1 to 0.3 mg/kg. The average amount of fluoride in a tube of toothpaste is sufficient to kill a child. As noted by Dr. Gary Whitford:

'The concentrations and quantities of fluoride in selected dental products are discussed in relation to the 'Probable Toxic Dose' (PTD). It is concluded that, as these products are currently packaged, most of them contain quantities of fluoride sufficient to exceed the PTD for young children'.

SOURCE: Whitford GM. (1987). Fluoride in dental products: safety considerations. Journal of Dental Research 66: 1056-60

Minimum Lethal Dose of Fluoride Contained in One Tube of Colgate for Kids Toothpaste, Statistical Table:

Age	Weight	Dose	Quantity
2 years	~12 kg	60 mg	42% of tube
3 years	~15 kg	75 mg	53% of tube
4 years	~16 kg	80 mg	56% of tube
5 years	~ 18 kg	90 mg	63% of tube
6 years	~20 kg	100 mg	70% of tube
7 years	~22 kg	110 mg	77% of tube
8 years	~25 kg	125 mg	87% of tube
9 years	~28 kg	140 mg	98% of tube

* Average weight data obtained here.
** The fluoride concentration in Colgate for Kids toothpaste is 1,100 ppm. At 130 grams of paste in the average tube, this equals 143 milligrams of fluoride.

Appendix 3: Historical Examples in which the Government Have Ignored Public Health Issues and / or Lied to Protect Industrial Interests

This section is outside of the remit of the consultation process, but I hope it will be considered in context to the debate on fluoridation and the close relationship that government has with the fluoride industry. In a historical context, the government uniformly (outside of partisan discourse and ideological politics) do not have a good record, when it comes to protecting the general public from industry and its commercial interests. Here I am not asking the committee to distrust what the government says on fluoride, but what I am requesting is that the reviewers of public policy look at the wider evidence and analyse whether what the government is saying is at odds with the scientific and current data available.

Case Study 1: Bovine Spongiform Encephalopathy (BSE), Mad Cow Disease

Mr Gummer, who was the Agriculture Minister during the first outbreak of BSE, was criticized after he encouraged his daughter Cordelia to eat a burger in front of television cameras in 1990. The scientific link between eating beef and CJD (human variant) was confirmed six years later. Rather disturbingly, if we look further back into government records, by February of 1988 secret government internal memos released under the Freedom of Information Act, confidentially warned the government that:

'BSE could pass between species through infected meat and though it would take time to prove it could pass to humans, [and] if it did it would prove fatal'.

Agricultural Government Internal Memos 1988

In the example cited, the Minister Gummer used the very old argument 'there is no current evidence to date', rather than looking at 'probable cause' or 'probable harm'. The fact that similar types of brain diseases in cattle have been documented since Roman times (Pliny 23-79 AD) and historically have been thought to be contagious to humans was in relation to BSE totally ignored by the government and its advisory bodies. The Phillips Inquiry into BSE concluded, during the first half of 1987:

'... there was a policy of restricting, even within the State Veterinary Service, the dissemination of any information about the new disease'.

(Phillips et al., 2000, Vol. 3, para.)

The outcome of the agricultural policy promoted by the Minister Gummer was shown to be politically driven and had dire and profound consequences for both the farming community and the British population. In a current study in the British Medical Journal based upon blood samples, the investigation revealed that 1 in 2,000 people in the United Kingdom probably harbour the infectious prion protein, which is thought to originate from cattle.

Case Study 2: Smoking

The case against smoking has been known about for a long time. In the early twentieth century my own grandfather recalled that Doctors would prescribe cigarettes for the common cold to clear sinuses. Although anecdotal the point goes to show that it is possible to convince a lot of very clever people to implement policies or strategies that are both 'daft' and are not conducive for the public well-being. This then is a good example of the centralisation of knowledge and its misuse.

By the early 20th century, there was already a lot of medical evidence to indicate that smoking promoted lung and heart disease. In the adverts below dating from the early to mid 1960s, Doctors and / or medical advice is prominently displayed within the advert, so as to reassure the customer that cigarettes are safe. The advertisers and cigarette companies are well aware that people in general trust figures of authority, and it is therefore important that this trust is not abused and / or manipulated for financial gain.

With respect to fluoridation and its potential harm, one of the major obstacles of addressing public safety in the medical record is that fluoride has been promoted by physicians as a 'safe' and an 'effective treatment' for dental decay for several decades. This 'health policy' has consisted of a 50 year campaign of conditioning the general public to accept fluoride as a preventative treatment. There are several good studies to show that there no longer is a difference in dental decay rates between fluoridated and non-fluoridated areas. The most recent one is in Australia quoted in Armfield & Spencer, 2004, Community Dental Oral Epidemiology. 32:283-96. The early comparison of fluoride to smoking is not that dissimilar, and plays upon medical expertise to allay public fear. For further details, refer to smoking and dental adverts below:

Comparison between Smoking and Fluoride Adverts

According to a recent Nationwide survey:

MORE DOCTORS SMOKE CAMELS THAN ANY OTHER CIGARETTE

DOCTORS in every branch of medicine—113,597 in all—were queried in this nationwide study of cigarette preference. Three leading research organizations made the survey. The gist of the query was—What cigarette do you smoke, Doctor?

The brand named most was Camel!

The rich, full flavor and cool mildness of Camel's superb blend of costlier tobaccos seem to have the same appeal to the smoking tastes of doctors as to millions of other smokers. If you are a Camel smoker, this preference among doctors will hardly surprise you. If you're not—well, try Camels now.

CAMELS *Costlier Tobaccos*

Dental Adverts – In this Advertisement 'Oral B Pro Expert' Toothpaste is shown to be Proactively Advocated by the Dental Industry – A Controversy that is Growing Larger by the Day – See Dr. Hardy Limeback Studies (Section 3).

Case Study 3: Asbestos

It wasn't until 1964 that asbestos was pinned officially as one of the causes of lung cancer, asbestosis, and malignant mesothelioma. With mass cover-ups including companies persuading publications not to write about the dangers of asbestos, it was a long time for asbestos to be recognized as a dangerous product. In 1966 a Raybestos-Manhattan Official wrote the following memo:

'We feel that the recent unfavourable publicity over the use of asbestos fibres in many different kinds of industries has been a gross exaggeration of the problems. There is no data available to either prove or disprove the dangers of working closely with asbestos'.

Barry I. Castleman, Asbestos: Medical and Legal Aspects, 4th edition, Aspen Law and Business, Englewood Cliffs, NJ 1996, p.590

Early evidence of asbestosis was characterized in a sworn statement on the 11th January 1978 by Wilbur Ruff, a former manager at Johns-Manville Canadian Plant. He described an official 'hush hush policy' and one that persisted until the late 1960s. In a survey of the same company in which seven workers were found to have asbestosis, the medical director, Kenneth W. Smith, deemed it inadvisable that the workers should be warned of their peril, he stated:

'It must be remembered that although these men have the X-ray evidence of asbestosis, they are working today and definitely are not disabled from asbestosis. They have not been told of this diagnosis, for it is felt that as long as the man feels well, is happy at home and at work, and his physical condition remains good, nothing should be said. When he becomes disabled and sick, then the diagnosis should be made and the claim submitted to the Company. The fibrosis of this disease is irreversible and permanent, so that eventually compensation will be paid to each of these men. But as long as the man is not disabled, it is felt that he should not be told of his condition so that he can live and work in peace and the Company can benefit by his many years of experience. Should the man be told of his condition today there is a very definite possibility that he would become mentally and physically ill, simply through the knowledge that he has asbestosis'.

Samuel Epstein, M.D., Professor of Occupational and Environmental Medicine at the School of Public Health of the University of Illinois, The Asbestos 'Pentagon Papers', p77-78

The aforementioned statement is an excellent example of what happens when 'Doctors' and 'Medical Experts' are paid to oversee corporate policy in which their advisory roles supersede public interest.

The Occupational Safety and Health Administration (OSHA) finally took notice and regulated the use of asbestos. At first, OSHA mandated an Emergency Temporary Standard (ETS) for exposure to asbestos dust in December of 1974. The dangers of asbestos became so prevalent that in 1979, the EPA announced the consideration of regulating asbestos under the Toxic Substances Control Act (TSCA). Yet, after a stampede of protests stating that too many people would be out of a job, the EPA decided not to pursue the regulations. Nonetheless, after a 10 year study on the dangers of asbestos and how it affects humans, the EPA finally banned the use of all asbestos in 1989. The suppression of information is clearly articulated by a federal ruling in which the judge presiding over the case stated in 1978:

'There has been a conscious effort by the [asbestos] industry in the 1930s to downplay or arguably suppress the dissemination of information to employees and the public for fear of the promotion of lawsuits'.

Amended order, Barnett v. Owens-Corning Fiberglas Corp et al, State of South Carolina, County of Greenville, Court of Common Pleas, Aug 23, 1978, cited in Barry I. Castleman, Asbestos: Medical and Legal Aspects, 4th edition, Aspen Law and Business,Englewood Cliffs, NJ 1996, p585

We could ask ourselves that at the highest degree inside of the fluoride industry are there similar machinations occurring? With the inordinate amount of evidence, the industry must by now realise internally that the introduction of fluoride into water and toothpaste will in future generations be banned under European Law, perhaps in as little as 20 years? The scientific facts against fluoride are now so overwhelming that the question is not 'if it will happen' but 'when', and the Local Authorities throughout the UK need to ask themselves the pertinent question which side of the litigation table will they be sitting on when the day of reckoning comes!

Appendix 4: Local Council Members and People to Contact

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- Andrew Furber: afurber@wakefield.gov.uk
- Jackie Speight: jspeight@wakefield.gov.uk
- Yvette Cooper's Office: coopery@parliament.uk Tel: 01977 553388
- Yorkshire Water: FAO Water Quality, PO Box 52, Bradford, BD3 7YD

- Simon C. Haigh (BA Single Hons, MIfL) Author of The Fluoridation Report Submitted to Wakefield County Council: yuopen@hotmail.com

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A Highly Recommended Book:

An excellent Book on scientific arguments against fluoride written by eminent medical practitioners include the erudite publication:

- THE CASE AGAINST FLUORIDE: How Hazardous Waste Ended Up in Our Drinking Water and the Bad Science and Powerful Politics that Keep it There

All of the Doctors that contributed to this work and their details are summarised below. The book chronicles a historical, political, and ethical review of fluoride. Its focus emphasizes the toxicological and epidemiological scientific data behind drinking fluoridated water. The study also concludes that, if proposed today, fluoridation of drinking water to prevent tooth decay would stand virtually no chance of being adopted, given the current status of scientific knowledge.

The Authors of the book are as follows:

- Dr. Paul Connett is the Director of the Fluoride Action Network (FAN), and the Executive Director of its parent body, the American Environmental Health Studies Project (AEHSP). He has spoken and given more than 2,000 presentations in forty-nine states, and fifty-two countries on the issue of waste management. He holds a BS (Honors) degree from the University of Cambridge and a PhD in Chemistry from Dartmouth College and is an Emeritus Professor of Chemistry at St Lawrence University, Canton, NY, where his areas of expertise were environmental chemistry and toxicology.

- Dr. James S Beck is a Professor Emeritus of Medical Biophysics at the University of Calgary and holds Doctorates in Medicine from Washington University School of Medicine and Biophysics from the University of California, Berkeley. He holds a DPhil from the University of Oxford.

- Dr. C Vyvyan Howard, MB ChB, PhD, FRCPath, is the Professor of Bioimaging, Nano Systems Biology, Centre for Molecular Biosciences, University of Ulster. He is a Toxico-Pathologist specialising in the problems associated with the action of toxic substances on the fetus and the infant.

Other Related and Useful Books:

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