



**Boston University
School of Public Health**
in the School of Medicine

**Department of
Environmental Health**
Talbot 2 East
715 Albany Street
Boston, Massachusetts
02118-2526
TEL: 617 638-4620
FAX: 617 638-4857/7726

April 11, 2007

Annette Smith
Executive Director
Vermonters for a Clean Environment, Inc.
789 Baker Brook Rd.
Danby, VT 05739

Dear Ms. Smith

This is in response to your inquiry concerning the plausibility of health effects from chloramination of the Champlain Water District. I am Professor of Environmental Health and Chair Emeritus of the Department of Environmental Health at Boston University School of Public Health. My research and teaching are in the area of environmental epidemiology, especially related to water contamination by chlorinated ethylenes, where I have published a number of major epidemiological studies. I also served two terms as an official negotiator in EPA's negotiated rulemaking for the microbial disinfection and disinfection byproduct rule, so I am familiar with the science of this general area of environmental health. My Curriculum Vitae is attached for your reference.

As I understand it, in April 2006 the Water District began a program of primary disinfection with free chlorine and residual secondary disinfection with monochloramine. Subsequently numerous water users began to complain of various acute health problems, reported to me as rashes, respiratory discomfort and gastrointestinal complaints. A close temporal relationship between the treatment change and the complaints of water users strongly suggests that one is the cause of the other. Without a more detailed study of the matter it is not possible to say this definitively, but it is plausible that something about the treatment change has caused this. Water chemistry is complicated and sometimes produces unexpected and untoward results. The complaints are notice to look into the matter.

The provision of safe and secure piped drinking water is one of the great triumphs of twentieth century public health and its effect on the entire community is a great benefit. At the same time that a water supply is an efficient means to deliver a health-giving substance, it is also an efficient means to distribute harmful ones. A water system is a "long lever" for both good and ill. We have learned that the disinfectant that we relied upon for so long, free chlorine, also has a negative side, disinfection by-products. All water systems are now trying to figure out how to minimize the impact of DBPs while insuring proper disinfection of their systems. As they make these adjustments missteps are bound to occur, and this may be an example.

In any event, health complaints from water users attendant upon any treatment change are a red flag and need attention.

I hope this has been useful to you.

Sincerely yours

A handwritten signature in black ink that reads "David Ozonoff, MD". The signature is fluid and cursive, with "David" and "Ozonoff" connected by a single stroke, and "MD" written in a smaller, more formal script to the right.

David Ozonoff, MD, MPH
Professor of Environmental Health
Chair Emeritus, Department of Environmental Health
Boston University School of Public Health