

January 27<sup>th</sup> hearing of the 250 Act Committee (Cabot, Vermont)

[2009]

As a professional scientist who has been intimately involved in the chemistry of water pollution <sup>before</sup> appropriate enforcement agencies while in support of typical clients, the recent hearing of the 250 Act Committee in Cabot was particularly troubling. (These <sup>earliest</sup> hearings sometimes were before US EPA boards preparatory to cases before US District Court. It should be noted that my presentations always carried the day, this because the chemistry was beyond reproof.) Cabot Creamery had petitioned the Committee to expand its land application of wastewater in anticipation of concomitant expansion of cheese production. The issue raised at the hearing by the complainants was that the chemical nature of the wastewater was sufficiently hazardous that permission for land application not be granted. In support of their petition, Cabot Creamery had retained a paid expert who presented a case that Cabot's present discharge presented no hazard to the environment, and that any expansion of said discharge would remain innocuous.

My contention was that the present discharge of wastewater is hazardous and that any further expansion of the discharge permit would be a further hazard to human health and to the environment. This contention on my part is based, not on subjectivity, but on serious science that has been widely accepted in the field of water treatment. Always in these hearings the representatives of particular enforcement authorities were technically proficient enough to appreciate and evaluate scientific presentations relative to the discharge cases, and never was a decision so rendered that my chemistry was anything in and above the letter and the spirit of the law. This record is the proudest aspect of my nearly fifty years of work in chemical science.


It is not with any flippancy that I contend that the representatives of State of Vermont present at the hearing were not scientifically qualified to render sound judgment on the matter of the Cabot discharge. In particular, the representative of the Vermont ANR showed himself to be entirely vacuous on the subject of environmental chemistry. Specifically, the Cabot management had retained a paid consultant, Dr. Peter Huettl, who gave a Power Point assisted discourse on the beneficial nature of the Cabot wastewater to the local agricultural fields. It is my contention that this presentation was false to the point of being disingenuous, and that the representatives of the state were incapable of a proper critical assessment of the presentation by Huettl. In particular, Huettl refused to acknowledge that the presence of chlorinated organic chemical species presented a hazard to the environment, this even when confronted with incontrovertible evidence to the contrary. Most egregious was Huettl's contention that comingling Cabot's different waste streams into their holding tanks represented "treatment," this when such comingling sets up a condition where unpredictable and undesirable chemical processes can take place. I have often observed this chemical manifestation taking place when called upon to correct water pollution discharges emanating from point sources. Specifically, the comingling of nitric acid, the chloride ion, and synthetic organic species, all routinely present in the Cabot wastewater presents a huge potential for generating chlorinated organic residues, most of which are carcinogenic. When pointedly asked whether or not the nitrate ion at low pH would oxidize chloride ion to chlorine, Huettl refused to answer. This chemical process is thermodynamically certain and

cannot be denied. Yet, Huettl continued to refer to this helter-skelter comingling of waste streams as "treatment." No environmental scientist that I have ever encountered in some forty plus years of professional work in the field had ever made this contention before. No one in official capacity at the hearing could understand this relevant fact.

It is for this reason that I am asking for a rehearing of the petition, this time with presence of qualified and independent chemical experts empanelled.

Quite apart, though of equal importance as the arguments presented above, the testing program for the Cabot wastewater is entirely self-monitored. In all my years I have never seen a self monitoring program that is legitimate except when unannounced and frequent sampling by the appropriate enforcement authorities are manifest. Since no such supervision is involved in this case, the entire nature of the issue is moot.

Bernard Greenberg



Ph.D, Physical Chemistry