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August 16, 2004

Board of County Commissioners
Jefferson County 100 Jefferson County Parkway
Golden CO 80419

Dear Jefferson County Commissioners:

This is a comment on the report entitled, "Update: Tumor Incidence in Residents Adjacent to the Lookout Mountain Antenna Farm, 1979-2002", issued by the Colorado Department of Public Health and Environment.

I have been involved in EMF issues for many years, particularly during the period of 1980-1987 at which time I directed the New York State Powerlines Project, and after that time was the spokesperson for the New York State Department of Health on the subject. While this study focused primarily on 60 Hz electromagnetic fields, I also have experience in radiofrequency EMFs, and have edited a two-volume book on biological effects of EMFs. From 1985-1998 I served as the Dean of the School of Public Health at the University at Albany, and so am credentialed in a variety of issues related to disease prevention. I am currently Director of the Institute for Health and the Environment at the University at Albany.

The report is carefully well written but, in my judgment, reflects the excessive conservatism characteristic of many health departments, including ours here in New York. It is important to recognize the "precautionary principle" in issues like this. This principle states that when there is reason to suspect that there is a public health problem, even if not all of the results are definitive, it is essential to strive to protect the health of the public. In essence, this report shows a statistically significant elevation of brain cancer in both men and women in relation to residence near these antennas. In my judgment, it is inappropriate to wiggle around making a judgment on the basis of the brain tumors not being all of the same histological type, and there being some differences between men and women. It is also inappropriate to discount the significance of this finding simply because they did not find elevations in leukemia. Certainly with 50-60 Hz EMFs the evidence for a relationship with leukemia is stronger than with brain tumors, but there is some evidence for both. But this is not to say that radiofrequency fields necessarily would cause the same cancers. This evidence for brain tumors needs to be considered on its own merit, and it shows a clear and consistent elevation in brain cancer over a prolonged period of time.

Another excuse for discounting the observations made here with which I strongly disagree is the fact that 2 cases from BG3 lived there for less than 3 years. The authors of the report argue that cancer inducers require longer than that to act. But there is absolutely no evidence that EMFs are inducers, and in fact a general consensus that they are promoters, if anything. This conclusion was made strongly in our New York State Powerlines Report from 1987. In those studies we found no chromosomal break or other indications of genotoxic actions. Nor has anyone else reported such changes with RF EMFs. Promoters do not require five years to act,

and therefore I do not find this a reason to question the cause-effect conclusion.

The fact that four of five cases from BG3 work in occupations where they are exposed to RF fields is similarly not a reason to discount the cause-effect relationship. In fact this only strengthens the support of the relationship, since if RF fields cause brain tumors it does not matter from where the exposure occurs.

I conclude that this study is positive in demonstrating a relationship between living near these antennas and the development of brain cancer. I acknowledge that the mechanism of this association is not understood, but this is certainly not the first time that RF fields have been implicated in brain cancer, and in my judgment it is inappropriate to discount the finding as is done in this report. It is not appropriate to delay efforts to reduce exposure until all the "I"s are dotted and the "T"s are crossed! Thank you for the opportunity to comment on this report.

Sincerely,

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