

STATE OF MINNESOTA

OFFICE OF ADMINISTRATIVE HEARINGS
FOR THE PUBLIC UTILITIES COMMISSION

In the Matter of the Application for a
Route Permit for the Fargo to St. Cloud
345 kV Transmission Line Project

OAH 15-2500-20995-2
PUC No. ET-2,E-002/TL-09-1056

**Avon's Response to NO CAPX 2020's
Motion to Strike**

I. Introduction

At the last of the public route hearings, held at the Holiday Inn in St. Cloud, a citizen asked for an explanation of the health dangers of magnetic fields. Dr. Peter Valberg, a witness for Applicant was asked by applicant and the Administrative Law Judge to respond to these concerns. Counsel for NoCapX2020 objected to allowing Dr. Valberg to place his testimony on the record on the grounds (a) that Dr. Valberg had not been sworn, and (b) that allowing Valberg to testify would create an unfair advantage to applicant, by allowing what assertedly is direct testimony into the record for the first time during the last day of public hearings. We left the Thursday hearing confused as to what Dr. Valberg was actually testifying to, but it seemed to us that over objection, Dr. Valberg testified, generally, (a) that initial studies had reported a statistical correlation between childhood leukemia and proximity to EMF sources,¹ (b) that physiology has not discovered a physical explanation for the mechanism by which EMF might

¹ See, e.g., Wertheimer N, Leeper E. Electrical wiring configurations and childhood cancer. *American Journal of Epidemiology* 109:273-284, 1979; Brodeur P. *The Great Power Line Cover-Up: How the Utilities and Government Are Trying to Hide the Cancer Hazard Posed by Electromagnetic Fields.* (Little-Brown, 1993).

cause disease, and (c) that later studies had not vindicated the earlier research, but that they had not completely disproved the possibility of a linkage². NoCapX2020 has now submitted a motion to strike the testimony submitted on the grounds articulated at the St. Cloud Hearing. Avon Township opposes the motion, but suggests that the Administrative Law Judge adopt a process to assure that this testimony is subject to appropriate scrutiny.

Avon Township has not taken a position on the EMF issue, because the Township lacks the credentials to take that position. We have regarded the issue as one involving deep and complex scientific issues which are outside the range of issues upon which the Township is capable of adding value. We do want our citizens however to have the reassurance that this issue has been fully explored.

Twelve public hearings have demonstrated that concerns about EMF, stray voltage and other feared or potential threats to the health of humans and livestock have dominated the testimony of a significant subgroup of citizens at these hearings. In some cases, these fears have been the primary motivating issue that have caused commenters to oppose the citing of the powerline near their property. It is impossible to ignore the fact that, whatever the ultimate science may demonstrate, the fear of adverse health impacts is a major motivating factor in the positions taken by some citizens. The concerns underlie the comments of some citizens who believe that the health threats are of such great concern that they should overwhelm all other statutory factors. People whose land may be impacted by the lines deserve the reassurance that will come from a complete and careful explanation of the state of medical and engineering

² ICNIRP (International Commission for Non-Ionizing Radiation Protection) Standing Committee on Epidemiology, Review of the Epidemiologic Literature on EMF and Health, Environmental Health Perspectives Supplements Volume 109, Number S6, December 2001.

evidence. Above all, families should not be forced to live in fear if that fear is not justified.

Avon Township believes that the issue of public health concerns cannot be properly resolved by suppressing scientific evidence either for, or against, through procedural technicalities. The public interest requires, it seems to us, that the citizens who will live near these lines have a full and complete exploration of this issue, and hopefully the reassurance that will come with it. If, as Applicant insists, these power lines pose no health risk, then the public deserves a clear and unequivocal explanation of the reasons why that is so. They deserve the assurance that the issue has been fully explored, and that the decision of the Commission has fully protected human health. If, on the other hand, there is a health risk, then it would be irresponsible to fail to address those risks with appropriate conditions imposed on the routing permit. Neither concern can be addressed, we think, by treating this as resolved through suppressing relevant testimony for procedural reasons.

In our view, the proper resolution of the motion is to proceed as follows. First, Dr. Valberg's oral testimony should be transcribed and filed, so that it is visible to the parties and the public to the same extent as other direct testimony. Second, the parties should have an opportunity to examine that testimony and the underlying science, and if necessary propound rebuttal testimony, or receive such other accommodation as may be appropriate. Avon Township does not intend to submit testimony, but if NoCAPX2020 has evidence that it wishes to submit, and feels that it deserves additional time to submit that evidence, it should be allowed to do so. The Administrative Law Judge has already indicated that we must return for a recessed hearing to review applicant's recently disclosed intention to present a virtual overflight of the routes using Google Satellite imaging technology. In the event that NoCapX2020 can demonstrate that it has

been prejudiced by the late appearance of this testimony, then a reasonable solution would be to allow NoCapX2020 to provide additional testimony at that time.

II. Citizens are Entitled to a Full and Complete Record Regarding Health Effects

Applicant addressed the issue of EMF's transparently in its Application. The application discloses the trend in research conclusions and exposes also the areas in which definitive research conclusions cannot be drawn. As applicant points out, in 1996, a committee of the National Research Council concluded:

Based on a comprehensive evaluation of published studies relating to the effects of power frequency electric and magnetic fields on cells, tissues, and organisms (including humans), the conclusion of the committee is that the current body of evidence does not show that exposure to these fields presents a human-health hazard. Specifically, no conclusive and consistent evidence shows that exposures to residential electric and magnetic fields produce cancer, adverse neurobehavioral effects, or reproductive and developmental effects. National Research Council Committee on the Possible Effects of Electromagnetic Fields on Biologic Systems. Possible Health Effects of Exposure to Residential Electric and Magnetic Fields. Washington, DC: National Academy Press, 1997.

Notwithstanding that conclusion, there is a regrettable tendency to treat the citizens who come before public hearings with anecdotal claims of health problems related to power lines as at best, poorly informed, or at worst, kooks. The truth of the matter is that citizens who diligently attempt to obtain neutral science-based information on this subject are able to find what appears to be sound science that creates cause for concern. For example, a publicly available peer reviewed British Medical Journal Article, "Childhood cancer in relation to distance from high voltage power lines in England and Wales: a case-control study," claims to have confirmed the

earlier study on cancer risk.³ The above cited article, Review of the Epidemiologic Literature on EMF and Health, explores the difficulties with statistic based science in establishing, or ruling out, a connection between EMF and disease⁴. World Health Organization articles are published and available on the web that can lead the average citizen to conclude either that there is no cause for concern, or that the science is inconclusive⁵.

Part of the problem is that lay citizens may not understand the difference between research based on sheer statistical correlations and research based upon understanding the actual mechanism by which EMF operate on the body. By definition, a certain number of peer reviewed studies will report a statistical correlation which derives from chance, from undisclosed sampling bias, from the existence of an unidentified factor which is actually responsible for the statistical connection. We should deal with these issues transparently so that the public will have confidence that they are being addressed.

³ “Compared with those who lived > 600 m from a line at birth, children who lived within 200 m had a relative risk of leukaemia of 1.69 (95% confidence interval 1.13 to 2.53); those born between 200 and 600 m had a relative risk of 1.23 (1.02 to 1.49). There was a significant (P < 0.01) trend in risk in relation to the reciprocal of distance from the line. No excess risk in relation to proximity to lines was found for other childhood cancers.”

⁴ The article may be found at.
<http://ehp.niehs.nih.gov/members/2001/suppl-6/911-933ahlbom/EHP109s6p911PDF.pdf>

⁵ Scientific evidence suggesting that everyday, chronic low-intensity (above 0.3-0.4 μ T) power-frequency magnetic field exposure poses a health risk is based on epidemiological studies demonstrating a consistent pattern of increased risk for childhood leukaemia. Uncertainties in the hazard assessment include the role that control selection bias and exposure misclassification might have on the observed relationship between magnetic fields and childhood leukaemia. In addition, virtually all of the laboratory evidence and the mechanistic evidence fail to support a relationship between low-level ELF magnetic fields and changes in biological function or disease status. Thus, on balance, the evidence is not strong enough to be considered causal, but sufficiently strong to remain a concern. WHO Extremely Low Frequency Fields Environmental Health Criteria Monograph No.238

At the close of Thursday's hearing, citizens, whatever their position on the line, seemed overwhelmingly to favor a full exploration of these issues. Citizens generally did not seem to agree with NoCapX2020's efforts to prevent a full and complete dissection of this controversy. By the same token, they wanted this important public issue to be examined with a semblance of fairness and equality. These hearings involve the granting to private enterprise what is a sovereign right—to take private property for a public purpose. At the end of the hearing, the applicant will have been granted the right to place power lines on what has been private property, and the grant of that power should come with appropriate reassurance.

Dated: December 5, 2010

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