

For decades, experts have debated the possible health concerns related to exposure to electrical and magnetic fields (EMFs). The attached article represents the best scientific analysis to date on this subject and is the result of a six-year, \$45 million research effort funded by Congress. You can access this report and other EMF information via the Internet at www.niehs.nih.gov/emfrapid/booklet/results.htm.

Duquesne Light Company agrees with the conclusions of this study and believes that EMFs do not pose a health risk to its customers, employees or other persons within its service territory. Accordingly, the company currently does not provide field tests for EMF levels, nor does it provide copies of any tests that may have been performed in the past.

If you remain concerned about EMF after considering the definitive study cited above, there probably are companies that provide testing for a fee. However, Duquesne does not keep a list of them or recommend any particular provider. We hope this information will be helpful to you. If you have any other questions, please feel free to contact me via e-mail at jbigi@duqlight.com

Sincerely,

*John S. Bigi
Supervisor
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Attachments

EMF/RAPID RESEARCH PROGRAM: EVIDENCE of CANCER LINK 'WEAK'

A National Institute of Environmental Health Sciences report to Congress in June 1999, summarizing the EMF/*Rapid* Research Program, says there is **no significant evidence of risk** of cancer and other diseases from low-frequency electric and magnetic fields (EMF). The report, the result of the six-year, \$45 million research effort, concluded that "the weak epidemiological associations and lack of any laboratory support for these associations provide only marginal scientific support that exposure to this agent is causing any degree of harm."

In a press release issued the same day the report was released, NEMA President Malcolm O Hagan said, "A careful reading of this report shows that no research funded by the EMF/*Rapid* Research Program found any significant link to cancer or any other adverse health effects. The conclusions drawn by researchers at the National Institute of Environmental Health Sciences and submitted to Congress should be comforting to the public." The report states that "virtually all of the laboratory evidence in animals and humans and most of the mechanistic studies in cells **fail to support a causal (cause and effect) relationship.**"

The research, mandated by Congress under the Energy Policy Act of 1992, was funded by both public and private sector funds. NIEHS directed the health effects research and drafted the report sent to Congress. While NEMA supported the conclusion that there is no significant evidence showing a causal link between EMF and cancer, it questioned a statement accompanying the report that EMF continue to be recognized as a possible cancer hazard.

A month before the National Academy of Sciences explicitly stated that "the results of the EMF/*Rapid* program do not support the conclusion that the use of electricity poses a major unrecognized public-health danger." Its research also found that "labeling power frequency magnetic fields a class 2B human carcinogen (possible human carcinogen) conveys to the public a conclusion that our committee believes is not supported by the underlying research."

That NAS report was preceded in 1997 by the largest study on EMF exposure in which the National Cancer Institute found **no evidence** linking EMF to childhood cancer. The study found that children who lived in homes with high measured magnetic fields were not significantly more likely to be diagnosed with acute lymphoblastic leukemia than children living in homes with lower magnetic field levels. Nor was the disease found to be more likely among those whose homes were classified in high categories of "wire code," a surrogate measure of magnetic fields that is based on the thickness, configuration, and distance from the home of nearby power lines.

Moreover, a long-term, controlled study released in April 1999 by the Canadian British Columbia Cancer Agency found **no relationship** between electromagnetic fields and childhood leukemia. The principal researcher, Dr. Mary McBride, noted upon the study release that: "we now have a generation of studies" with improved exposure

assessment that offer less support for the EMF-disease association. "Epidemiology is not perfect," she noted, "but within the limits of what we can study, this alters the balance of evidence against the idea of causality."

An earlier NIEHS draft report concluded that there were no data to support a link between exposure to electromagnetic fields and cancer. The draft report stated "the results of the research supported by this program provide substantial evidence that there is not a robust biological effect of EMF exposure at environmentally relevant levels. These, taken together with the National Academy of Sciences Report, provide a basis for concluding that environmental EMF exposures at the levels to which human exposure occurs in the environment, do not demonstrate an effect on critical biological processes and functions that could be expected to adversely affect human health."

NEMA's press statement points out that NIEHS would not be likely to include EMF on its own list of carcinogens because it does not meet the criteria established under the National Toxicology Program. The NIEHS reports concludes: "It is our opinion that based on evidence to date, ELF-EMF exposure would not be listed in the Report on Carcinogens as an agent reasonably anticipated to be a human carcinogen. This is based on the limited epidemiological evidence and the findings from the EMF/*Rapid* program that did not indicate an effect of ELF EMF exposure in experimental animals or a mechanistic basis for carcinogenicity."

"The stakes in this issue, for both the public and the manufacturing industry, are important," said O Hagan. "We believe that the EMF/*Rapid* program did what it was supposed to do. In controlled studies, it measured the effect of EMF on humans and animals in a variety of controlled settings. After five years, that research yielded data that fail to support any conclusion linking EMF to cancer or other adverse health effects."

"We praise the over 100 research teams involved in this program and welcome the findings of the research conducted under the EMF/*Rapid* program. This, however, is tempered by our disappointment over the classification of EMF as a possible carcinogen justified by the use of dated, limited research. In science, it is virtually impossible to prove a negative. That is the crossroads to which this research brings us. We hope that the interagency committee, established by the President to make a subsequent report to Congress and determine whether remedial action is necessary, will consider the science conducted by the program and serve the public by reflecting that science in its recommendations. We also urge that in its subsequent efforts to educate the public, the federal government provide a balanced picture of the risks the public incurs by exposure to EMF. The research released today indicates there is no significant risk and that **no extraordinary means need be taken to control for negligible risk.**"