

WE NEED A SCIENCE COURT

JOURNAL OF BIOELECTRICITY, 4(1), vii-viii (1985)

EDITORIAL

In the late 1960's the Navy proposed a large antenna (Project Sanguine) to transmit low-frequency electromagnetic fields to submarines. In December 1973, studies of the biological effects of these electromagnetic fields were evaluated by a blue-ribbon panel (BRP), which expressed serious reservations about Sanguine's safety, and about other similar sources of electromagnetic fields such as high voltage powerlines. When the BRP report (Proceedings of the Ad Hoc Committee for the Review of Biomedical and Ecological Effects of ELF Radiation, Bureau of medicine and Surgery, Department of the Navy, Washington, D.C., 1973) was released by Senator Gaylord Nelson, the resulting furor led to a second BRP, chosen with more care (Science 192, 1213-1215, 1976). Its conclusion (Biological Effects of Electric and Magnetic Fields Associated with Proposed Project Seafarer, National Academy of Sciences, Washington, D.C., 1977) was diametrically opposite that of the BRP. The NAS-BRP discounted any possible health risks and gave the Navy a green light, but the controversy continued. Residents of Michigan and Wisconsin who lived near Sanguine's proposed site apparently had misgivings about the integrity of the adjudicatory process. Did the fact that the Navy orchestrated the NAS-BRP have anything to do with its conclusion?

Recently, the results of still another carefully-chosen BRP (Biological and Human Health Effects of Extremely Low Frequency Electromagnetic Fields, Committee Report, American Institute of Biological Sciences, Arlington, Virginia, 1985)(AIBS-BRP) concluded that it was unlikely that Sanguine's electromagnetic fields would be a public-health risk. Thus, the BRP box score is 2 to 1, with the anti-risk BRPs in the lead. Does this mean that Sanguine's electromagnetic fields present no health risk? No. It simply confirms that he who has the gold makes the rules. The AIBS-BRP's conclusion was obvious when its composition was announced.

There is a better way. We must recognize that the question of the safety of Sanguine (or high-voltage powerlines or microwave ovens or any other source of electromagnetic radiation) is inherently adversarial. The Navy obviously wants the antenna, and it supports the scientists who say that it will be safe. Many scientists disagree with this notion, and the fact that they are routinely excluded from government committees and contracts does not detract from the validity of their position. Scientists on both sides should be allowed to take part in the fact-finding process, and it is they who should pick the judges and procedures. It is perfectly permissible for the experts to have strongly-held views or biases; what matters is the quality and relevance of their evidence, and the clarity and cogency of their logic. The judges however, must be unbiased and must avoid even the appearance of bias. An agent or employee of the Navy or the electric power industry, for example, would not qualify. This concept, the science court (Science 193, 653-656, 1976) follows the same principles and practices for the determination of truth and the pursuit of justice as are practiced in all other spheres in our society.

Andrew A. Marino