

To: Office of the Secretary
Federal Communications Commission
Washington, DC 20554

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EMR POLICY INSTITUTE COMMENT

EMR Policy Institute (EMRPI), a non-profit independent public education organization, opposes the Cellular Telephone and Internet Association's (CTIA) attempt to impose specific time limits for states and municipalities to act on cell tower and base station antenna siting applications as irrational, unreasonable, arbitrary and capricious, and unconstitutional.

EMRPI also opposes CTIA's attempt to have the Federal Communications Commission (FCC) direct state and local government bodies how to decide "public need" and to "preempt"

local ordinances and state laws “that treat every wireless siting application as requiring a variance.”

All four of CTIA’s requests violate constitutional due process and states' rights under the Fourth, Fifth and Tenth Amendments to the United States Constitution.

EMRPI particularly opposes CTIA's attempt to overrule, by agency fiat, the Third Circuit's decision in APT Partnership v. Penn Township, 196 F.3d 469, 480 (3d Cir. 1999). Only the United States Supreme Court and the Congress of the United States can do that. This agency is bound by Circuit Court decisions, and is not a superior authority with power to disregard or discard Federal Court decisions with which the industry may disagree.

Opposition to Proposed Time Limits

The petition of the CTIA that the FCC adopt 45 and 75 day time limits for local consideration of wireless antenna and tower zoning applications is one-sided, arbitrary and unsound. Attached hereto as Exhibit A, B, and C are three recent examples where application process delays were caused by Applicants' incomplete, false and misleading statements – not by a state or local agency’s procedures. [Exhibit A resulted in the Applicant’s withdrawal of the antenna request. The other two examples are currently pending.]

Opposition to CTIA’s Attempt to Use the FCC to Overrule Circuit Court of Appeals

CTIA admits that it is attempting to have the FCC overrule decisions by U.S. Courts of Appeals on interpretations of Section 332 (c)(7)(B)(i)(II).(See CTIA Petition at fn 76). This suggestion would be an unconstitutional violation of separation of powers – and should be rejected out of hand.

EMRPI CROSS-PETITION

Pursuant to Section 1.2 of FCC's Rules and Section 554 (e) of the Administrative Procedures Act (APA), the EMRPI Cross-Petitions the FCC to declare that its present radiofrequency (RF) safety guidelines and regulations do not cover non-thermal, long-term cumulative environmental and biological effects of RF emissions, and do not prevent states and municipalities from adopting and enforcing setbacks or buffer zones to place cell towers and other wireless transmission facilities a safe distance away from daycare centers; nurseries, pre-K and elementary schools; and children's playgrounds and residences, as a precautionary measure to protect young children from potential adverse health effects from RF emissions until the FCC adopts appropriate, research-supported safety guidelines covering such health effects.

EMRPI Mission

We believe that the unfettered use of electromagnetic radiation (EMR) — radiofrequency/microwave radiation (RF/MW) present in all wireless and communications technologies, as well as the extremely low frequencies (ELF) present in power-line supplies — is ill advised given research that has accumulated over the last two decades. The Mission of The EMR Policy Institute is to foster a better understanding of the environmental and human biological effects from such exposures. Our goal is to work at the federal, state and international levels to foster appropriate, unbiased research and to create better cooperation between federal regulatory agencies with a responsibility for public health in order to mitigate unnecessary exposures that may be deemed to be hazardous.

Background

During the drafting and consideration of the Telecommunications Act of 1996 (the Act) the House Committee on Commerce declared that it is the FCC's responsibility under the Act to adopt "uniform, consistent requirements, with adequate safeguards of the public health and safety," and that these were, and are, to be "established as soon as possible." (H.R. Report No. 104-204, p. 94) (Emphasis added.)

While the 1996 FCC guidelines may have been "adequate safeguards of the public health and safety" under the existing state of scientific knowledge then (based on thermal effects), that is no longer the case. A series of unmet research needs have been identified by Federal agencies and their expert consultants -- including the National Academy of Sciences-- which show that the 1996 FCC regulations no longer provide "adequate safeguards of the public health and safety" from RF emissions today. The FCC's persistent failure to initiate independent adequately-funded and well-conducted up-to-date research into non-thermal RF radiation effects invalidates the statutory preemption clause by removing its underlying premise -- that the FCC guidelines must provide "adequate safeguards" established "as soon as possible." They no longer do.

Failure of FCC Guidelines to Provide “Adequate Safeguards”

The Congressional mandate to the FCC to set and to keep safeguard standards current is not a casual comment buried in the Act's legislative history, but is reiterated for emphasis on page 95 of House Report 104-204:

"The Committee believes the Commission rulemaking on this issue (ET Docket 93-62) should contain adequate, appropriate and necessary levels of protection of the public, and needs to be completed expeditiously."

Plainly this was intended to be a continuing responsibility.

The 2008 National Academy of Sciences (NAS) Report

In January 2008 NAS issued a report entitled: Identification of Research Needs Relating to Potential Biological or Adverse Health Effects of Wireless Communication Devices (NAS Report). This lengthy report is incorporated herein by reference (found at: <http://www.nap.edu/catalog/12036.html>.) The following excerpts from the NAS Report support the conclusion that the research record upon which FCC's RF Safety Guidelines are based does not adequately address the adverse effects of RF radiation on the human environment or "safeguard" public health and safety:

Research Needs

- 1. There is a need to characterize exposure of juveniles, children, pregnant women, and fetuses, both for personal wireless devices (e.g., cell phones, wireless personal computers, [PCs]) and for RF fields from base station antennas including gradients and variability of exposures, the environment in which devices are used, and exposures from other sources, multilateral exposures, and multiple frequencies.*
- 2. Wireless networks are being built very rapidly, and many more base station antennas are being installed. A crucial research need is to characterize radiated electromagnetic fields for typical multiple-element base station antennas and for the highest radiated power conditions with measurements conducted during peak hours of the day at locations close to the antennas as well as at ground level.*
- 3. The use of evolving types of antennas for hand-held cell phones and text messaging devices need to be characterized for the Specific Absorption Rates (SARs) that they deliver to different parts of the body so that this data is available for use in future epidemiologic studies.*
- 4. RF exposure of the operational personnel close to multi-element newer base station antennas is unknown and could be high. These exposures need to be characterized. Also needed are dosimetric absorbed power calculations using realistic anatomic models for both men and women of different heights.*

(P. 5)(Emphasis added.)

- 5. Most of the reported studies to date have involved one base station antenna and have used mostly homogeneous models, often of simplified circular or rectangular cross sections of the exposed human . . . In other words, the studies to date do not*

pertain to the commonly used multiple-element base station radiators. Also, unlike highly localized cell phone RF energy deposition, the base station exposures involve much, if not all, of the body and would have slightly different radiator origins (for multiple-element base stations) and may be multi-frequency as well, particularly if several different-frequency base station antennas are co-located. Furthermore, because of the whole-body resonance phenomenon, the SAR is likely to be higher for shorter individuals due to the closeness of the frequency/frequencies of exposure to the whole-body resonance frequency.
(P.15)(Emphasis added.)

Toxicological Studies

In 1999 FDA nominated RF radiation emissions of wireless communication devices to the National Toxicology Program for Toxicological Studies for research because of “widespread consumer and worker exposure” and because “the available data is inadequate to properly assess safety.”

FDA’s “Nomination from FDA’s Center for Devices and Radiological Health” explains its nomination (entitled: “Radiofrequency Radiation Emissions of Wireless Communication Devices”) with the following statements:

Executive Summary

Over 80 million Americans currently use wireless communications devices (e.g., cellular phones) with about 25 thousand new users daily. This translates into a potentially significant public health problem should the use of these devices even slightly increase the risk of adverse health effects. Currently cellular phones and other wireless communication devices are required to meet the radiofrequency radiation (RFR) exposure guidelines of the Federal Communications Commission (FCC), which were most recently revised in August 1996. The existing exposure guidelines are based on protection from acute injury from thermal effects of RFR exposure, and may not be protective against any non-thermal effects of chronic exposure. Animal exposure research reported in the literature suggests that low level exposures may increase the risk of cancer by mechanisms yet to be elucidated, but the data is conflicting and most of this research was not conducted with actual cellular phone radiation . . . There is currently insufficient scientific basis for concluding either that wireless communication technologies are safe or that they pose a risk to millions of users. A significant research effort, involving large well-planned animal experiments is needed to provide the basis to assess the risk to human health of wireless communications devices.

(P. 1) (Emphasis added.)

B. Physical Properties of Wireless Telephone Radiation

. . . Thermal effects are well established and form the biological basis for restricting exposure to RF fields. In contrast, non-thermal effects are not well established and, currently, do not form a scientifically acceptable basis for restricting human exposure to microwave radiation at those frequencies used by hand-held cellular telephones. A large number of biological effects have been reported in cell cultures and in animals, often in response to exposure to relatively low-level fields, which are not well established but which may have health implications and are, hence, the subject of on-going research. It is not scientifically possible to guarantee those non-thermal levels of microwave radiation, which do not cause deleterious effects for relatively short exposure, will not cause long-term adverse health effects.

(P. 2) (Emphasis added.)

National Toxicology Program Fact Sheet

The NTP Fact Sheet describing the FDA nominated RF radiation study is entitled:

“Studies on Radiofrequency Radiation Emitted by Cellular Phones - Year 2005.” It makes the following statements about the research upon which the current FCC Radiofrequency Radiation exposure guidelines are based:

. . . The existing exposure guidelines are based on protection from acute injury from thermal effects of RFR exposure. Current data are insufficient to draw definitive conclusions concerning the adequacy of these guidelines to be protective against any non-thermal effects of chronic exposures.

Studies in laboratory animals are considered crucial for understanding whether exposure to RFR is adverse to human health because meaningful data from epidemiological studies (human population studies) of cellular phone use will not be available for many years. This is due to the long latency period between exposure to a carcinogenic agent and the diagnosis of a tumor. Most scientific organizations that have reviewed the results from laboratory studies conducted to-date, however, have concluded that they are not sufficient to estimate potential human health cancer risks from low-level RFR exposures and long-term, multi-dose, animals studies are needed.

What is the NTP Doing?

The Food and Drug Administration (FDA) nominated RFR emissions of wireless communication devices to the [NTP] for toxicology and carcinogenicity testing. The NTP has carefully evaluated the efforts underway and concluded that while they have an

excellent probability of producing high quality results, additional studies may be warranted to more clearly define any potential hazards to the U.S. population.

(P. 1) (Emphasis added.)

Study Conducted at the Request of Germany's Federal Agency for Radiation Protection

Wolfram König, President of Germany's Bundesamt für Strahlenschutz, put out a call to all doctors of medicine to collaborate actively in the assessment of the risk posed by the radiofrequency radiation employed in mobile phone transmissions. The study entitled, "The Influence of Being Physically Near to a Cell Phone Transmission Mast on the Incidence of Cancer," by authors Horst Eger, Klaus Uwe Hagen, Birgitt Lucas, Peter Vogel, and Helmut Voit was published in *Umwelt-Medizin-Gesellschaft* 17,4 2004, in response to this call. In it these practicing physicians evaluated the personal data of almost 1,000 patients. The aim of the study was to examine whether people living close to mobile phone transmitter antennas were exposed to a heightened risk of taking ill with malignant tumors:

The result of the study shows that the proportion of newly developing cancer cases was significantly higher among those patients who had lived during the past ten years at a distance of up to 400 metres from the cellular transmitter site, which has been in operation since 1993, compared to those patients living further away, and that the patients fell ill on average 8 years earlier.

In the years 1999-2004, i.e., after five years' operation of the transmitting installation, the relative risk of getting cancer had trebled for the residents of the area in the proximity of the installation compared to the inhabitants of Naila [village studied] outside the area.

(P.1)

School Buffer Zones

Why did Congress choose to add the statutory phrase "to the extent that" in defining the preemptive effect of FCC safety standards under Section 332(c)(7)(B)(iv)? The answer is found in House Report No. 104-204, in the discussion in Section 107 at page 94 on "Facilities Siting."

What the House Report says is this:

The siting of facilities cannot be denied on the basis of Radio Frequency (RF) emission levels which are in compliance with Commission RF emission regulated levels.

(Emphasis added.)

In short, state and local agencies are not preempted from restricting the siting of facilities on the basis of other environmental factors that are not addressed or covered by the FCC in its regulated RF emission levels.

It is undisputed that the FCC does not regulate RF emission levels based on the length of exposure, or non-thermal effects, or age or other characteristics of the persons exposed.

Until such time as the FCC regulates RF emissions based on these factors -- and others like them -- state and local agencies have a public duty to prevent harm to the public from unregulated emission levels of unknown risk of potential harm. One way to do this is through the use of setbacks or "buffer zones."

Most state and local agencies have thought their authority was limited to aesthetic issues, but the statutory language leaves open all environmental and health effects "to the extent that" they are not covered by the FCC emissions guidelines.

Nothing in the law prevents a state or local agency from protecting against other threats to public health and safety unless and until the FCC itself issues covering regulations.

A perfect example of a non-preempted restriction of wireless transmissions is the establishment of a local buffer zone -- e.g.: no tower may be built or operated closer than a certain distance (say 2500 feet) from schools, playgrounds, and residences. Until the FCC itself adopts a different buffer zone limit based on independent valid research, state and local governments are free -- nay, obligated -- to do so.

Local siting agencies may not be arbitrary and capricious; they must base their actions on substantial evidence; they must give their reasons in writing; and they must not abuse discretion - but they are free to act "to the extent that" the FCC has not already done so. The FCC should say so, to remove all doubt.

The FCC's Admitted Disregard of the Congressional Mandate

The legislative history of the Telecommunications Act of 1996 shows that Congress granted preemption to the FCC's Safety Regulations on condition that the agency adopt and maintain adequate public health protection safeguards and that the agency do so "expeditiously". Congress obviously intended that the FCC would keep its safeguards up-to-date and current, based on the most recent reliable scientific research.

A close examination of the FCC's public statements on "Radio Frequency Safety" shows how far the FCC has failed to carry out this Congressional charge.

The following statements are taken directly from the FCC's own website. They appear in the FCC public information document called Frequently Asked Questions about Radio Frequency Safety. These statements demonstrate that the FCC has done nothing to update its safety guidelines since its 1996 adoption of regulations – a period of two decades of neglect:

- (1) FCC has not initiated continuing scientific research into RF biological effects;
- (2) FCC has not updated its guidelines based on significant findings of FDA-sponsored studies; EPA inter-agency council recommendations; or studies from European countries -- all of which show that the FCC's safety regulations are obsolete;
- (3) FCC has not offset the telecom industry's domination and control of RF research in the U.S.; and
- (4) FCC has not advised state and local agencies how to protect citizens against the possibility of increased cancer and other health risks for school children and persons living near tower sites.

FCCs Failure to Provide "Adequate" Safeguards for Public Health and Safety

(a) Human Health Hazards

In its RF Safety FAQs¹ the FCC asks the following question:

"WHAT BIOLOGICAL EFFECTS CAN BE CAUSED BY RF ENERGY ?"

The second half of its answer to this FAQ is this:

"At relatively low levels of exposure to RF radiation, i.e., levels lower than those that would produce significant heating, the evidence for production of harmful biological effects is ambiguous and unproven. Such effects have sometimes been referred to as "non-thermal" effects. Several years ago research reports began appearing in the scientific literature describing the observation of a range of low-level biological effects. However, in many cases further experimental research has been unable to reproduce these effects. Furthermore, there has been no determination that such effects constitute a human health hazard. It is generally agreed that further research is needed to determine the generality of such effects and their possible relevance, if any, to human health. In the meantime, standards-setting organizations and government agencies continue to monitor the latest experimental findings to confirm their validity and determine whether changes in safety limits are needed to protect human health."

(Emphasis added.)

"No determination" by whom? This is a matter of scientific research, not an administrative proceeding. A number of studies have found that some "non-thermal" effects do present potential human health hazards. Significantly, there has been "no determination" that non-thermal effects do not constitute a human health hazard. Until there is definitive scientific proof one way or the other, the responsible public agency response is to urge caution and to avoid unnecessary exposure of schools and homes to RF radiation from nearby cell sites.

(b) Cancer Risk

This is how the FCC deals with the public concern over RF radiation and cancer:

¹ www.fcc.gov/oet/rfsafety/rf-faqs.html

"CAN RADIOFREQUENCY RADIATION CAUSE CANCER?"

"Some studies have also examined the possibility of a link between RF and microwave exposure and cancer. Results to date have been inconclusive. While some experimental data have suggested a possible link between exposure and tumor formation in animals exposed under certain specific conditions, the results have not been independently replicated. In fact, other studies have failed to find evidence for a causal link to cancer or any related condition. Further research is underway in several laboratories to help resolve this question. The Food and Drug Administration has further information on this topic with respect to RF exposure from mobile phones at the following Web site: www.fda.gov/cdrh/phones/index.html."

(Emphasis added.)

"Inconclusive" is not a proper response by an agency charged with providing "adequate" safety standards. If there is any possibility that RF radiation can cause cancer, the FCC's standards must make provision to avoid that result. The findings by German doctors that cancer rates have trebled within 400 meters of a cell tower in that country certainly requires the FCC to recommend using that distance, plus an additional safety factor, as a minimum buffer zone around cell sites -- whether the agency considers the study "inconclusive" or not -- it is a warning sign that must be heeded until disproven.

(c) Current Research

The FCC FAQs document also asks the following question:

"WHAT RESEARCH IS BEING DONE ON RF BIOLOGICAL EFFECTS?"

In response, the FCC admits that the agency itself is doing nothing, and has left the field to the telecom industry -- whose self-interests are diametrically opposed to the public interest in restricting the location of cell sites.

"At the present time, most of the non-military research on biological effects of RF energy in the U.S. is being funded by industry organizations such as Motorola, Inc. Relatively more research is being carried out overseas, particularly in Europe."

(Emphasis added.)

(d) Obsolete Guidelines

In response to this question:

"WHY HAS THE FCC ADOPTED GUIDELINES FOR RF EXPOSURE?"

the FCC avoids any mention of the Congressional requirement that the FCC maintain "adequate safeguards of the public health and safety," and that it do so "expeditiously":

"Human exposure to RF radiation emitted by FCC-regulated transmitters is one of several factors that must be considered in such environmental evaluations. In 1996, the FCC revised its guidelines for RF exposure as a result of a multi-year proceeding and as required by the Telecommunications Act of 1996."

(Emphasis added.)

(e) Cell Towers Near Homes and Schools

This is the FCC's head-in-the-sand response to the European studies recommending "prudent avoidance" when locating towers near homes and schools:

"ARE CELLULAR AND OTHER RADIO TOWERS LOCATED NEAR HOMES AND SCHOOLS SAFE FOR RESIDENTS AND STUDENTS?"

"As discussed above, radiofrequency emissions from antennas used for wireless transmissions such as cellular and PCS signals result in exposure levels on the ground that are typically thousands of times less than safety limits. These safety limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety. Therefore, there is **no reason** to believe that such towers could constitute a potential health hazard to nearby by residents or students."

(Emphasis added.)

This circular argument constitutes a total abandonment of agency responsibility to adopt or update "adequate" public health safeguards in the face of the overwhelming scientific

evidence from other countries, combined with the statements of inadequacy of the FCC exposure levels by various responsible scientific groups.

NULLIFICATION OF FCC PREEMPTION

The consequence of the FCC's failure to maintain its Safety Regulations is to nullify their preemptive effect. The Tenth Amendment now takes over to fill the regulatory vacuum left by the FCC's failure, and state and local governments are free to make their own siting decisions on cell antennas based on their retained police power to protect the health, safety and welfare of the state's citizens against risks not addressed by the FCC's obsolete 1996 guidelines.

In Massachusetts v. E.P.A., several states petitioned the Supreme Court to review the mandate under The Clean Air Act to the E.P.A. to regulate emissions of four greenhouse gases. Among the issues presented was whether the E.P.A. had the authority to refuse to regulate the emissions based on political and other considerations unrelated to the endangerment to human health and welfare. Justice Stevens wrote for the majority that ignoring scientific findings and passing the buck would not lift the Congressional command to regulate:

On October 20, 1999, a group of 19 private organizations [FN omitted] filed a rulemaking petition asking EPA to regulate “greenhouse gas emissions from new motor vehicles under §202 of the Clean Air Act.” App. 5. Petitioners maintained that 1998 was the “warmest year on record”; that carbon dioxide, methane, nitrous oxide, and hydrofluorocarbons are “heat trapping greenhouse gases”; that greenhouse gas emissions have significantly accelerated climate change; and that the IPCC’s 1995 report warned that “carbon dioxide remains the most important contributor to [man-made] forcing of climate change.” *Id.*, at 13 (internal quotation marks omitted). The petition further alleged that climate change will have serious adverse effects on human health and the environment. *Id.*, at 22–35. * * *

EPA [cannot] avoid its statutory obligation by noting the uncertainty surrounding various features of climate change and concluding that it would therefore be better not to regulate at this time. See 68 Fed. Reg.

52930–52931. If the scientific uncertainty is so profound that it precludes EPA from making a reasoned judgment as to whether greenhouse gases contribute to global warming, EPA must say so. That EPA would prefer not to regulate greenhouse gases because of some residual uncertainty * * * is irrelevant. The statutory question is whether sufficient information exists to make an endangerment finding.

In short, EPA has offered no reasoned explanation for its refusal to decide whether greenhouse gases cause or contribute to climate change. Its action was therefore “arbitrary, capricious, ... or otherwise not in accordance with law.” [42 U. S. C. §7607\(d\)\(9\)\(A\)](#). We need not and do not reach the question whether on remand EPA must make an endangerment finding, or whether policy concerns can inform EPA’s actions in the event that it makes such a finding. Cf. [Chevron U. S. A. Inc. v. Natural Resources Defense Council, Inc.](#), [467 U. S. 837](#), 843–844 (1984). We hold only that EPA must ground its reasons for action or inaction in the statute.

[Massachusetts v. EPA](#), 549 U.S. 497 (2007)

(Emphasis added.)

Where a Federal regulatory agency has refused to comply with a statutory command, especially in the arena of "public health and safety," the state itself may not shirk its duty to do so under the Tenth Amendment.

INTERNATONAL SCIENTIFIC PUBLICATIONS

The FCC candidly acknowledges that more RF radiation research is being done internationally than in the U.S. Here are some of the results of recent international studies:

In 2007, an international working group of scientists, researchers and public health policy professionals (The BioInitiative Working Group) released a major report on electromagnetic fields (EMF) and health. It raises serious concern about the safety of existing public limits that regulate how much EMF is allowable from power lines, cell phones, and many other sources of EMF exposure in daily life. The BioInitiative Report provides detailed scientific information on health impacts when people are exposed to electromagnetic radiation hundreds or even thousands of times below limits currently established by the FCC and International Commission for Non-Ionizing Radiation Protection in Europe (ICNIRP). The authors reviewed more than 2000 scientific studies and reviews, and concluded that the existing public safety limits are inadequate to protect public health. The Report concludes that, from a public health policy standpoint, new

public safety limits, and limits on further deployment of risky technologies are warranted based on the total weight of scientific evidence.

In 2005, a scientific study in Austria of a random cross-section of inhabitants living near cell towers ("base stations") showed that people living for more than one year near the towers experienced headaches, vertigo, palpitations, tremors, hot flashes, sweating, loss of appetite, loss of energy, exhaustion, tiredness, difficulties in concentration, and stress.

In 2003, a scientific study in France of a random cross-section of inhabitants living near cell towers ("base stations") showed that persons living close to cell towers experienced nausea, loss of appetite, visual disturbances and difficulty in moving. Those living within 100 meters of base stations experienced irritability, depressive tendencies, difficulties in concentration, loss of memory, dizziness, and lowering of libido. For persons living in the zone of 100 to 200 meters from base stations, the symptoms experienced included headaches, sleep disruption, feelings of discomfort and skin problems. Beyond 200 meters, the principle symptom was fatigue.

A group of doctors in Bavaria, Germany, reported observations of patients living in the vicinity of cell towers ("base stations") experienced the following symptoms: sleep disturbance, tiredness, headache, restlessness, lethargy, irritability, inability to concentrate, forgetfulness, depression, impaired hearing, dizziness, nose bleeds, visual disturbances, joint and muscle pains, palpitations, increased blood pressure, hormone disturbances, nocturnal sweating and nausea.

In 2003, a double-blind study conducted in the Netherlands of subjective complaints of persons exposed to wireless signals found a statistically significant relation between wireless signal and cognitive impairment including anxiety, inadequacy, reaction time, visual selection, and found such effects in all samples.

In 2003, a scientific study in Spain of persons exposed to wireless signals for more than six hours a day, seven days a week, at power levels far below safety guidelines, subjects experienced symptoms such as fatigue, irritability, headache, nausea, appetite loss, discomfort, gait difficulty, sleep disturbance, depression, difficulty in concentration, memory loss, dizziness, skin alterations, visual dysfunction, auditory dysfunction and cardiovascular alterations.

In 2004, a scientific publication in Sweden concluded that there was an increase in malignant melanomas of the skin related to pulsed signals from FM broadcasting antennas in Sweden, Norway and Denmark attributed to impairment of the skin repair mechanism by electronic radiation.

In 2000, as a result of scientific studies in the United Kingdom, the Department of Health recommended a "precautionary approach," to the placement of base stations "until more research findings become available."

In 2004, the International Association of Firefighters (IAFF) reported that some firefighters with cell towers currently located on their stations are experiencing symptoms that "put our first responders at risk." The IAFF specifically referred to headaches, slow response and clouded ability to make decisions caused by "a sort of brain fog" they attributed to the presence of these cell towers. At their 2004 annual convention, the IAFF members passed a resolution to study the health effects of cell towers on fire stations and urged a moratorium on the placement of new cell towers on fire stations until the completion of the study.

In 2006, a group of scientists meeting at Benevento, Italy adopted a resolution urging a "precautionary approach" to the exposure of people to EMF and RF radiation. The resolution specifically stated: "Based on our review of the science, biological effects can occur from exposures to both extremely low frequency fields (ELF EMF) and radiation frequency fields (RF EMF)." The scientists added that "epidemiological and laboratory studies that show increased risks for cancers and other diseases from occupational exposures to EMF cannot be ignored."

In 2007, The Sunday Times in the United Kingdom reported that a study of sites around mobile phone masts show "high incidences of cancer, brain haemorrhages, and high blood pressure within a radius of 400 yards of mobile phone masts." The news report stated "a quarter of the 30 staff at a special school within sight of the 90 ft high mast have developed tumors since 2000, while another quarter have suffered significant health problems."

All of these reports confirm the inadequacy of the FCC's present safety guidelines.

STATES' RIGHTS

In *New York v. United States* and *Printz v. United States* the United States Supreme Court forcefully reconfirmed the long-standing principle that "Congress may not simply 'commandeer the legislative processes of the States by directly compelling them to enact and enforce a federal regulatory program.'" 505 U.S. at 161 *quoting Hodel, supra*, 452 U.S. at 288. See also *New York*, "the Constitution has never been understood to confer upon Congress the ability to require states to govern according to Congress' instruction." *citing Coyle v. Smith*, 221 U.S. 559, 565 (1911); *Printz*, 521 U.S. at 925: ". . . the Federal Government may not compel the states to implement, by legislation or executive action, federal regulatory programs."

Commandeering the legislative power of the states to serve federal ends is antithetical to the “system of dual sovereignty” established by “the Framers, who explicitly chose a Constitution that confers upon Congress the power to regulate individuals, not states,” *Printz*, 521 U.S. at 918, 920, *quoting Gregory v. Ashcroft*, 501 U.S. 452, 457 (1991); *New York*, *supra* 505 U.S. at 166.

The historical record conclusively establishes that the Framers “designed a system in which the state and federal governments would exercise concurrent authority over the people – who were, in Hamilton’s words, ‘the only proper objects of government.’” *Printz*, 521 U.S. at 919-920, *quoting The Federalist No. 15; Accord, Alden*, *supra*, 527 U.S. at 714.

Any act which threatens to “compromise the structural framework of dual sovereignty” is “categorically” unconstitutional and “no comparative assessment of the various interests [involved] can overcome that fundamental defect.” *Printz*, 521 U.S. at 932-33.

While the categorical rule may appear doctrinaire and inflexible, it serves vital constitutional purposes by preserving the accountability of elected officials to the electorate – the very basis of democratic government. As explained in *New York*:

. . . Where the federal Government directs the States to regulate, it may be *state officials who will bear the brunt of public disapproval*, while the federal officials who devised the regulatory program may remain insulated from the electoral ramifications of their decision. (505 U.S. at 169) (Emphasis added.)

See also Printz, observing that where state governments are forced to implement a Federal program, state officials are “put in a position of taking the blame for its burdensomeness and its defects.” (521 U.S. at 930, *quoting Merritt, Three Faces of Federalism: Finding a Formula for the Future*, 47 Vand. L. Rev. 1563, 1580, n. 65 (1994)).

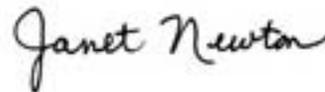
The Federal Government may, of course, exercise the power to set public health standards in areas relating to interstate commerce. However, where it has defaulted on its obligation to protect public health, the Federal Government may not simultaneously *prevent the States from taking action to do so*. Such preemption would be irreconcilable with the “dignity and essential attributes inherent in” the States’ status as sovereigns. (*Alden*, 527 U.S. at 714).

CONCLUSION

Against the existing failed research record, it is imperative that the FCC encourage state and local governments to site telecommunications base station facilities at a reasonable distance away from schools, playgrounds, workplaces, and family residences to safeguard the health and safety of American children. Buffer zones offer a reasonable, practical, and inexpensive way to safeguard public health and safety pending the outcome of conclusive research on RF radiation public health and safety impacts.

The CTIA Petition should be denied in all respects and the EMRPI Cross-Petition should be granted.

The EMR Policy Institute

A handwritten signature in black ink that reads "Janet Newton". The signature is written in a cursive, flowing style.

by Janet Newton, President
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Telephone: (802) 426-3035

PETITION NO. 763

April 18, 2006

Ms. Pamela B. Katz, Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, Connecticut 06051

Dear Ms. Katz:

Dr. Carl Bornemann respectfully submits the attached Petition for a Declaratory Ruling (Petition) to the Connecticut Siting Council for its consideration. Petitioner seeks a determination from the Council:

- (1) that Petition No. 701 filed by Nextel Communications, Inc. under date of December 14, 2004, seeking a Council determination that a Certificate of Environmental Compatibility and Public Need is not required for the proposed modification to a Connecticut Light & Power Company (CL&P) electric transmission facility at 145 Beebe Hill Road, tower #2010 in Canaan, Connecticut (hereinafter sometimes referred to as the "Beebe Hill Cell Tower"), was false and misleading and omitted material facts;
 - (2) voiding the Council's order of January 24, 2005, unanimously approving Nextel's said false and misleading Petition No. 701;
 - (3) directing Nextel Communications Inc. to pay over to the Siting Council the cost of funding adequate independent research and investigation under the Council's supervision into the biological effects of modulated ultra-high frequency radio wave emissions on birds, plants, amphibians, fish and wildlife;
 - (4) suspending all construction, installation and operation of any cell towers by Nextel Communications, Inc. in the Beebe Hill and Robbins Swamp vicinity until completion of such research and investigation and the Council's consideration and action thereon;
- and (5) directing Nextel Communications, Inc. to pay Petitioner's costs and attorney's fees.

Exhibit A

Ms. Pamela B. Katz, Chairman
Connecticut Siting Council
Page 2

The grounds for this relief are set forth in the enclosed Petition and the exhibits attached thereto.

Petitioner Carl Bornemann is the settlor, co-trustee and/or beneficiary of several family trusts that hold title to the property on which Nextel proposes to erect a telecommunications tower. Petitioner has authorized Gabriel North Seymour, Esq. to appear and serve as attorney for Petitioner in all proceedings before the Council.

Thank you for your consideration.



Carl Bornemann, M.D.
145 Beebe Hill Road
Falls Village, CT 06031



Gabriel North Seymour
Attorney for Petitioner
200 Route 126
Falls Village, CT 06031

(860) 824-1412

cc. Nextel Communications, Inc.
100 Corporate Place
Rocky Hill, CT 06067
(by Certified Mail, Return Receipt Requested)

Petition of Dr. Carl Bornemann for
A Declaratory Ruling invalidating
the Council's order of January 24, 2005,
approving Nextel Communication, Inc.'s
Petition 701, on grounds of Nextel's false
and misleading statements, and also lack
of due process, and seeking appropriate
investigation, research and corrective measures.

PETITION NO. 763

INTRODUCTION

On January 24, 2005, the Council unanimously approved Nextel Communications Inc.'s Petition No. 701 for a determination that a Certificate of Environmental Compatibility and Public Need pursuant to Connecticut General Statutes Section 16-50g et seq. is not required for the modification of the Connecticut Light & Power (CL&P) electric transmission facility described therein. The proposed modification involves the installation of 6 antennas on a 19' pole extension and the location of Nextel's associated equipment and improvements.

The grounds for the relief sought by this Petition are set forth below:

I. Nextel Made False, Incomplete and Misleading Statements in Petition No. 701.

In its December 14, 2004 Petition, Nextel made the following false, incomplete and misleading statements:

(a) Ownership of Property. In the first paragraph of its Petition, Nextel stated that the proposed cell tower and equipment would be "entirely within the existing CL&P property." It then went on to state that Nextel had "received authorization from CL&P for the project."

In fact the property in question belongs to Petitioner Carl Bornemann and to the family trusts of which he is the authorized representative. It does not belong to CL&P.

Petitioner was never contacted or notified by Nextel, and has never authorized the Nextel installation.

(b) The CL&P Easement Does Not Permit the Erection of Any Buildings. Although Nextel acknowledged later in its Petition that CL&P only holds an easement to the right of way across Petitioner's property, Nextel did not mention that the easement expressly excludes the erection of buildings. Nextel did not attach a copy of the easement to its Petition, which would have shown its limitations. On information and belief, Nextel never informed the Council that the erection of buildings (as proposed by Nextel and approved by the Council) was not authorized under CL&P's easement. A copy of the easement is attached hereto as Exhibit A.

(c) The CL&P Easement Does Not Authorize Wireless Communications. As demonstrated by the clear wording of Exhibit A, the easement granted to CL&P relates solely to "electric transmission and/or distribution lines". Nowhere does it grant CL&P the right to transmit wireless communications, or digital, video or other wireless applications. The grantee is limited expressly to the use of "wires."

(d) Nextel's Petition Does Not Mention the Existence of Nearby Historic or Natural Resources or Wetlands. The various maps attached to Nextel's Petition No. 701 do not indicate the proximity of the proposed Beebe Hill Cell Tower to the Appalachian Trail, to trout fishing locations below the Great Falls of the Upper Housatonic River, or to the significant wetlands and nature preserves all of which are within the operating range of the electro-magnetic radiation emissions from the proposed tower.

Nextel Petition 701 entirely fails to mention significant historic structures within the tower's range, including the Beebe Hill School and the c.1740 Asahel Beebe house, which played a significant role in the American Revolution.

Attached as Exhibit B, is an expanded section of the USCGS topo map showing the proximity of the Beebe Hill Cell Tower to Robbins Swamp and Hollenbeck River, both of them calcareous wetlands of major environmental significance.

As to the importance of protecting these resources, See Connecticut Environmental Protection Act Sections 22a-1 – 22a-2a; 22a-36 – 22a-45; 23-5a – 23-5g; 23-8; 23-66; 26-303 – 26-314.

II. Nextel and the Council, Acting Under Color of Law, Deprived Petitioner Bornemann of His 14th Amendment Due Process Rights by Their Failure to Notify or Consult Him About Nextel's Petition for a Declaratory Ruling Before or After Granting Same.

No justification exists for Nextel's and the Council's failure to notify Dr. Bornemann of the Nextel Petition and the Council's determination that a Certificate of Environmental Compatibility and Public Need was not required for the erection of the proposed cell tower on his property in close proximity to his home, with the potential of interference with Petitioner's property in such a manner as to amount to a taking. Petitioner was thereby denied both timely notice and a right to be heard. [See First Lutheran Church v. Los Angeles County, 482 U.S. 304 (1987)]

III. Nextel Misled The Council By Its Unsupported Summary Assertion that the Beebe Hill Cell Tower "Will Not Have a Substantial Adverse Environmental Effect."

Connecticut Environmental Protection Act Section 26-310 provides:

"Sec. 26-310. Actions by state agencies which affect endangered or threatened species or species of special concern or essential habitats of such species. (a) Each state agency, in consultation with the commissioner, shall conserve endangered and threatened species and their essential habitats, and shall ensure that any action authorized, funded or performed by such agency does not threaten the continued existence of any endangered or threatened species or result in the destruction or adverse modification of habitat designated as essential to such species, unless such agency has been granted an exemption as provided in subsection (c) of this section. In fulfilling the requirements of this section, each agency shall use the best scientific data available." (Emphasis added)

Nextel's Petition 701 failed to inform the Council that the Beebe Hill Cell Tower would be located near Connecticut's largest protected inland wetland containing rare and endangered plant and vertebrate and invertebrate species. (See Exhibit C.) State Geological and Natural History Survey Bulletin No. 57 lists 13 species of salamanders and newts and 13 species of toads and frogs as indigenous to Connecticut's woods and wetlands, many of which are believed to be found in these nearby wetlands. (See Exhibit D.) These species are important to the environment in controlling insects and in providing food for birds, small animals, reptiles, turtles and fish. Nextel does not address the potential impact the transmission of modulated ultra-high frequency radio waves will have on these environmentally significant species.

Nextel also failed to inform the Council that the area surrounding the proposed Beebe Hill Cell Tower has been confirmed as a major habitat for 57 different species of birds, many of them song birds from Central and South America that migrate here each summer to breed, as shown by the State Geological and Natural History Survey of Connecticut (Bulletin 113) published in 1994 by the Department of Environmental Protection. Species that use the Beebe Hill Cell Tower transmission area as a breeding ground include the:

Northern Goshawk
American Kestrel

Ruffed Grouse
Wild Turkey
American Woodcock
Belted Kingfisher
Piliated Woodpecker
Eastern Wood-Pewee
Least Flycatcher
Northern Rough-Winged Swallow
Bank Swallow
Cliff Swallow
Blue-Gray Gnatcatcher
Yellow-Throated Vireo
Golden Winged Warbler
Purple Finch

A recent study by scientists in Spain shows that birds that nest in close proximity to cell transmission towers have significantly lower reproduction rates than those that nest at greater distances from them. (See Exhibit E.) Other studies raise similar possibilities. Nextel should have informed the Council of the existence of these studies and their relevancy to the Beebe Hill Cell Tower site and vicinity.

IV. The Council Should Direct Nextel to Pay the Costs of An Adequate Independent Study of the Impact of Cell Tower Emissions on the Breeding and Reproduction of Birds, Amphibians and other Wildlife in the Habitats and Natural Areas in the Region Surrounding the Proposed Beebe Hill Cell Tower.

The Council's website states that its responsibilities include:

"The Council is responsible for:

"3) encouraging research to develop new and improved methods...of transmitting and receiving...telecommunications signals with minimal damage to the environment;...."

The Council's website also notes that Section 16-50j-41 of its regulations authorizes the Council to institute investigations "at any time."

Nextel should be directed to pay to the Council adequate funds to cover the cost of a thorough independent investigation and research into ways to minimize the impact of emissions from the proposed Nextel cell tower installation on nesting birds, amphibians, plants and wildlife.

To the Petitioner's knowledge, no Federal agency, including the Federal Communications Commission, has conducted such research, and no Federal statute preempts the State's ability to research ways to minimize damage to birds, amphibians, plants and wildlife from non-thermal electro-magnetic radiation emitted from the Nextel telecommunications tower.

Request for Council Action

Accordingly, for all the reasons set forth above, Petitioner Dr. Carl Bornemann requests a Declaratory Ruling

(1) that Petition No. 701 filed by Nextel Communications, Inc. under date of December 14, 2004, seeking a Council determination that a Certificate of Environmental Compatibility and Public Need is not required for the proposed modification to a Connecticut Light & Power Company (CL&P) electric transmission facility at 145 Beebe Hill Road, tower #2010 in Canaan, Connecticut was false and misleading and omitted material facts;

(2) voiding the Council's order of January 24, 2005, unanimously approving Nextel's said false and misleading Petition No. 701;

(3) directing Nextel Communications, Inc. to pay over to the Siting Council the cost of funding adequate independent research and investigation under the Council's supervision into the biological effects of modulated ultra-high frequency radio wave emissions on birds, plants, amphibians, fish and wildlife;

(4) suspending all construction, installation and operation of any cell towers by Nextel Communications, Inc. in the Beebe Hill and Robbins Swamp vicinity until completion of such research and investigation and the Council's consideration and action thereon;

and (5) directing Nextel Communications, Inc. to pay Petitioner's costs and attorney's fees.

Respectfully submitted,



Gabriel North Seymour
Attorney for Petitioner
200 Route 126
Falls Village, CT 06031
(860) 824-1412

April 18, 2006

EXHIBITS

- Exhibit A: Easement
- Exhibit B: Topo Map
- Exhibit C: Nature Conservancy Description of Wetlands
- Exhibit D: State Bulletin 57 Excerpts
- Exhibit E: White Stork Study

Grant Maud Sedyard Von Ketteler to The Connecticut Power Co,

To all people to whom these Presents shall come, Greeting;
 Know ye that I Maud Sedyard Von Ketteler of the County of
 Cascaus, County of Litchfield and State of Connecticut,
 hereinafter called Grantor, for the consideration of one dollar
 and other good and valuable considerations hereby acknowledged
 and received to my full satisfaction of The Connecticut Power
 Company, a Connecticut Corporation located in Hartford, Con-
 necticut, hereinafter called Grantee, do give, grant, bargain, sell,
 and convey unto the said Grantee, its successors and assigns
 the following rights and rights of way:

The perpetual right, privilege and easement to enter upon, erect,
 maintain, rebuild, inspect, operate, replace, repair, remove, and
 relocate at all times forever, upon over, under and across any part
 of the following strip of land located in the Town of Cascaus,
 County of Litchfield, in said State, said strip of land being
 shown on a map entitled "The Connecticut Power Company,
 Map Showing Right of way for Transmission Lines Across Property
 of Maud Sedyard Von Ketteler Town of Cascaus, Conn., February
 1942, Number 4235-8, to which map in the possession of the
 Grantor or to a copy filed in the Town Clerk's office of said
 Town of Cascaus, or to a copy attached hereto but not used
 a part hereof, reference is hereby made, the Grantor hereby
 acknowledging receipt of a copy of said map; said strip
 being bounded and described as follows:

Said strip is bounded on the westerly side by the easterly
 side of highway leading from Falls Village to New Milford,
 being Highway Route #7, and on the easterly end by the
 westerly side of land of William R. Hawkins, and is bounded
 on the westerly and southerly sides by parallel lines extending
 from the westerly end of said strip to the easterly end of said
 strip; said westerly side of said strip being parallel with
 and 50 feet distant northerly from the center line hereinafter
 described, measuring at right angles thereto; said southerly
 side of said strip being parallel with and 50 feet distant
 southerly from said center line, measuring at right angles
 thereto.

The center line of said strip begins at a point in the easterly
 side of said Highway Route #7, said point being 196.0 feet
 westerly from the Connecticut State Highway beginning
 located in the easterly side of said Highway, thence
 $S 82^{\circ} - 31' E 709.1$ feet to a point, thence $S 89^{\circ} - 34' E 1706.4$
 feet to the westerly side of property owned by said William
 R. Hawkins.

Not including herein Beebe Hill Road, so-called, except
 as the Grantor has an interest therein;

Together with so much of said Highway Route #7 as lies
 between the westerly and southerly sides of said strip of
 land contained across said Highway, so far as the Grantor
 has the right to grant any right therein;

Together with another strip of land in so far as the Grantor
 now has any interest in the same and in so far as they
 are not included in the above described strip, described
 in a deed to the Grantee dated July 11, 1913 and recorded
 in Cascaus Land Records Book 27, Page 76 reference being
 hereby made to said deed and to the map therein referred to,
 a copy of which is on file in the office of the Town Clerk
 of Cascaus, for a more particular description of said
 other strip;

One on wire lines of structures to support electric transmission

EXHIBIT "A"

and/or distribution lines, including anything covered by this grant, said supporting structures to be wooden or metal poles, for wooden or metal towers, or other structures of wood or metal or both, of any kind, design or arrangement, and of any number, to be erected, when and as often as the grantee or successors or assigns, hereafter desires, with lines of wires, conductors, guy wires, cross arms, and all things, fittings and apparatuses (except buildings) for conductors, anchors, poles, ground wires and cross arms to properly support and protect electric transmission and distribution lines from all natural disturbances, each of the foregoing to be of all kinds, designs, sizes, and of any number which the grantee elects, useful, at the time of delivery of this deed or thereafter, for the transmission and/or distribution of electricity of every voltage and characterized by any number of circuits, and for telephone, telegraph and signal purposes, with the right to relocate and change the position of poles, towers, or other supporting structures and any other part of said transmission and/or distribution lines, including all ground wires, cross arms, or other protective devices and any poles or much the same are located, and any other things covered by this grant wherever the same are situated so long as they are located where they could have been built originally, with the right to support said ground wires, cross arms or other protective devices on a separate single wooden pole line on said right of way as to each extent erected, or to place the same end-to-end so long as the same are located on said right of way, together with a reasonable right of access over and across the land of the grantor abutting described to said right of way, and the right to transmit and/or distribute by the foregoing for any and every purpose, electricity of every character, and use and have the right for telephone, telegraph and signal purposes, and the right at any and all times to cut, fell, trim and remove and limbs and branches, stumps and underbrush or other obstructions upon said right of way, upon any land of the grantor which in the judgment of the said grantee, its successors or assigns may interfere with or endanger the same or the operation thereof or be cut off from the property of the burden of the deed, and the right to travel on and carry materials over said right of way in exercising all rights which said grantee, its successors or assigns, has in other lands, and the right to erect and maintain on said or other land of the grantee, guy wires and anchors to support structures hereafter erected at or near angles, poles in said strips.

It is agreed that the grantor retains the right to use the land covered by said strip of land for her own purposes so long as said use is in the judgment of the grantee does not interfere with any of the rights hereinafter provided, said lands shall remain the property of the grantor, its successors and assigns, and it is agreed to pay all taxes assessed thereon. The grantor, for herself, her heirs, legal representatives, and assigns, agrees that no building, or other structure shall at any time be erected upon said strip or portion thereof either the northerly or the southerly side thereof which will affect in any way or more particularly than the use of the property of said grantor herein referred to.

The grantee, by the acceptance of this deed, hereby agrees not to erect any modern structures within 300 feet of Tower #13 of the Grantee, which is shown on said map of the property of the Grantor.

To Have And To Hold the above granted and bargained rights and rights of way with the appurtenant appurtenances unto it, the said Grantee, its successors and assigns forever to it and their own proper use and behoof. And I do, the said Grantor do for myself, my heirs, executors, administrators and assigns, acknowledge that the said Grantee, its successors and assigns, that at and until the sealing of these presents I and well seized of the above rights, rights of way and premises as a good indefeasible state in fee simple and have good right to bargain and sell said rights and rights of way in whole or in part as above written, and that the same are free from all encumbrances whatsoever, except any existing rights of the Grantee therein, and except said said Bebe Hill Road and said Highway Route #7, as to which these covenants shall not apply.

Released September 30, 1942

And furthermore I the said Grantor do by these presents bind myself and my heirs forever, to warrant and defend the above granted and bargained rights and rights of way to the said Grantee, its successors and assigns, against all claims and demands whatsoever, except as aforesaid.

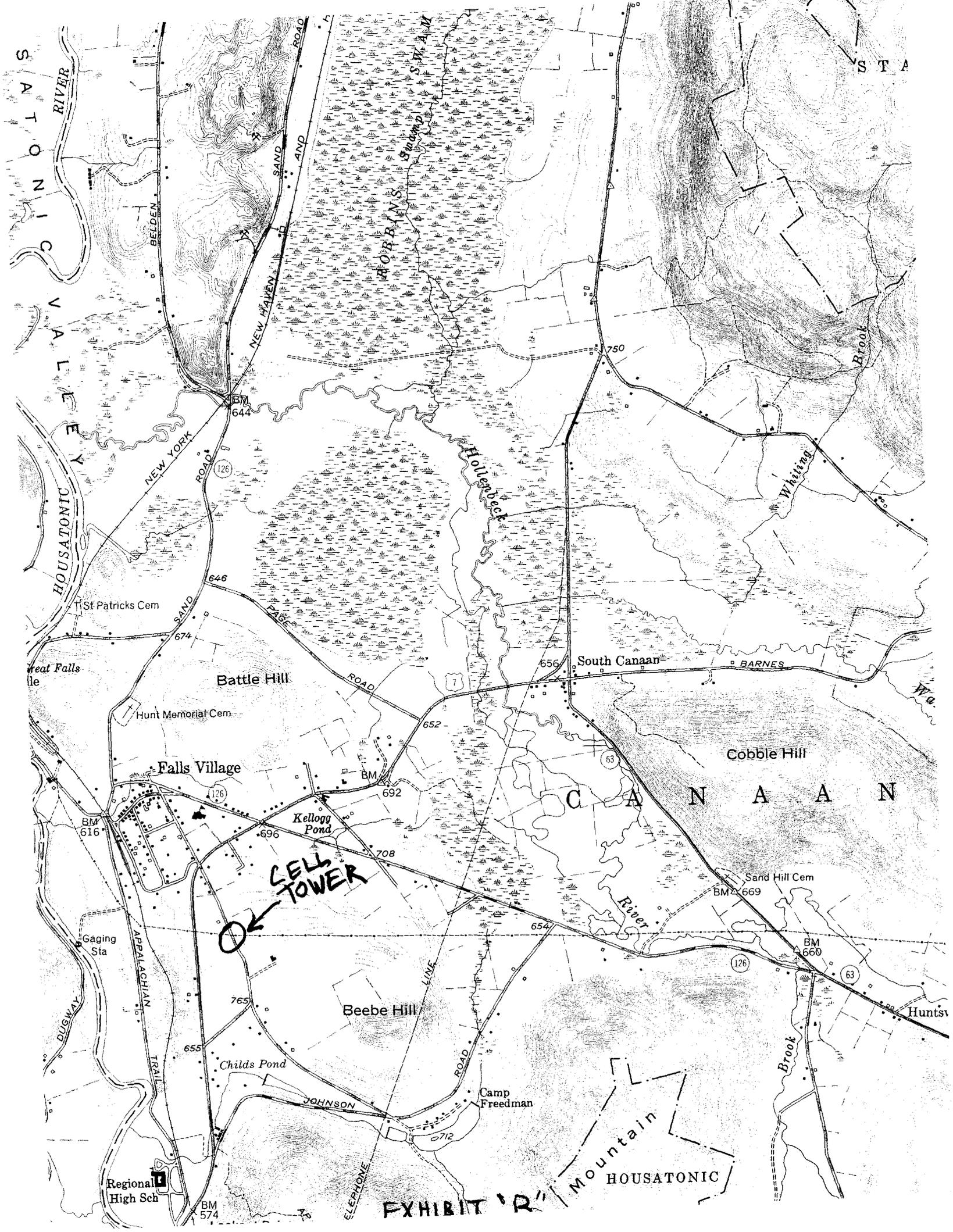
In witness whereof I have hereunto set my hand and seal this 29 day of June, A.D. 1942

Signed, sealed and delivered
in presence of
Cecil B. Sawyer
Dwight M. Roberts
Maud Sedyard von Ketteler

State of Connecticut
County ofitchfield
Canaan June 29, 1942

Personally appeared Maud Sedyard von Ketteler
signer and sealant of the foregoing instrument,
and acknowledged the same to be her free act
and deed before me
Cecil B. Sawyer
Notary Public

Remained for record
July 14 - 1942 at 11:45 am
M. K. Noble
Town Clerk



CELL TOWER
↓

EXHIBIT 'R'

HOUSATONIC RIVER
VALLEY

CANAN

Mountain
HOUSATONIC

S T A

Huntsv

Regional High Sch

BM 574

JOHNSON ROAD
ELEPHONE LINE

Camp Freedman

Childs Pond

Beebe Hill

Kellogg Pond

Falls Village

Cobble Hill

South Canaan

Battle Hill

NEW YORK ROAD (126)

NEW HAVEN ROAD

HOUSATONIC RIVER

Brook

Whiting Brook

River

Brook

Sand Hill Cem

St Patricks Cem

Hunt Memorial Cem

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Childs Pond

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Connecticut's Last Great Places

Northwest Highlands

Connecticut's Northwest Highlands Program focuses on conserving the natural resources of northwestern Connecticut, including the vast chain of forest blocks and important waterways and watersheds stretching from Kent to Hartland. This region contains spectacular biological diversity, including more than 150 rare and endangered plants and animals - the highest concentration in Connecticut.

The Nature Conservancy has been active in Connecticut's Northwest Highlands for more than 47 years, establishing its first preserve in the state at Beckley Bog in Norfolk in 1957. The rolling Berkshire foothills, dotted with picturesque villages, comprise some of Connecticut's last untouched natural areas. Large and ecologically significant tracts of unfragmented forest remain, representing extraordinary conservation opportunities.



Hollenbeck Preserve, Falls Village
© Christopher S. Wood

The Northwest Highlands feature rugged uplands such as Canaan Mountain, an 8-mile range rising steeply to a series of summits, one as high as 1,962 feet. The area is made up largely of rocky ledges and a diversity of vegetation, including 1,200 acres of forest that have been protected from indiscriminate cutting for the past 50 years. A total of almost 5,000 acres are protected on Canaan Mountain today.

Adjacent to Canaan Mountain is the Hollenbeck River and its watershed, which includes Robbins Swamp, Connecticut's largest inland wetland. Robbins Swamp represents one of the region's most significant environments: calcareous wetlands. These open wetlands are influenced by underlying marble bedrock, making them alkaline, unlike most New England wetlands, which are acidic. Calcareous wetlands provide an uncommon environment and host a number of rare plants and animals. Nearby Wangum Lake Brook, which drains into the Hollenbeck River, is also part of this calcareous wetland complex.

Together, Canaan Mountain and Robbins Swamp are home to a variety of rare animals and plants, including the endangered timber rattlesnake and northern metalmark butterfly, three rare bird species, and 23 rare species of plants, including a variety of trees, flowering plants, grasses, and sedges.

In the Northwest Highlands, the Conservancy is working cooperatively with local landowners and conservation partners to preserve a network of land and waterways, to safeguard the ecological processes in those areas, and to manage land to protect rare species and natural communities.

The Northwest Highlands Program and the Conservancy's Berkshire-Taconic Landscape Program (BTLP) based in Sheffield, Mass., complement one another. BTLP focuses on the area where Connecticut, Massachusetts, and New York converge, and centers on a mountainous 56-square-mile forest at its core.

News:

[Greg Overton Directs Northwest Highlands Program](#) [Read Press Release](#)

Contact:

For more information on this program, please contact:
Greg Overton, Northwest Highlands Program Director
24 Center Street
Winsted CT 06098
tel (860) 738-9324
fax (860) 738-9329
goverton@tnc.org

EXHIBIT "C"

State of Connecticut
State Geological and Natural History Survey
BULLETIN No. 57

THE AMPHIBIA of CONNECTICUT

By
LEWIS HALL BABBITT



HARTFORD
Published by the State
1937

597
.6
BAB

EXHIBIT "D"

CONTENTS

	Page
INTRODUCTION	9
GENERAL	0
Voices	10
Value to Man	10
Enemies	10
Protection from Enemies	10
KEY TO CONNECTICUT AMPHIBIANS	11
Salamanders	11
Frogs and Toads	12
SALAMANDERS AND NEWTS	13
Mud Puppy, <i>Necturus maculosus maculosus</i>	13
Four-toed Salamander, <i>Hemidactylium scutatum</i>	14
Dusky Salamander, <i>Desmognathus fuscus fuscus</i>	15
Slimy Salamander, <i>Plethodon glutinosus</i>	16
Red-backed Salamander, <i>Plethodon cinereus</i>	17
Purple Salamander, <i>Cyrinophilus porphyriticus</i>	18
Two-lined Salamander, <i>Eurycea bislineata bislineata</i>	19
Red Salamander, <i>Pseudotriton ruber ruber</i>	20
Spotted Salamander, <i>Ambystoma maculatum</i>	21
Tiger Salamander, <i>Ambystoma tigrinum</i>	22
Marbled Salamander, <i>Ambystoma opacum</i>	23
Jefferson's Salamander, <i>Ambystoma jeffersonianum</i>	24
Newt, Red Eft, <i>Triturus viridescens viridescens</i>	25
TOADS AND FROGS	26
Spadefoot Toad, <i>Scaphiopus holbrookii holbrookii</i>	26
American Toad, <i>Bufo americanus</i>	30
Fowler's Toad, <i>Bufo fowleri</i>	32
Cricket Frog, <i>Acris gryllus</i>	33
Swamp Tree Toad or Three-Striped Tree Frog, <i>Pseudacris nigrita triseriata</i>	34
Spring Peeper, <i>Hyla crucifer</i>	34
Tree Toad or Tree Frog, <i>Hyla versicolor versicolor</i>	36
Leopard Frog, <i>Rana pipiens</i>	39
Pickerel Frog, <i>Rana palustris</i>	40
Wood Frog, <i>Rana sylvatica</i>	42
Green Frog, <i>Rana clamitans</i>	43
Mink Frog or Northern Frog, <i>Rana septentrionalis</i>	44
Bullfrog, <i>Rana catesbiana</i>	45
BIBLIOGRAPHY	47

EXHIBIT "D" (CONTINUED)

Possible Effects of Electromagnetic Fields from Phone Masts on a Population of White Stork (*Ciconia ciconia*)

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Monitoring of a white stork population in Valladolid (Spain) in the vicinity of Cellular Phone Base Stations was carried out, with the objective of detecting possible effects. The total productivity, in the nests located within 200 meters of antennae, was 0.86 ± 0.16 . For those located further than 300m, the result was practically doubled, with an average of 1.6 ± 0.14 . Very significant differences among the total productivity were found ($U = 240$; $p = 0.001$, Mann-Whitney test). In partial productivity, an average of 1.44 ± 0.16 was obtained for the first group (within 200m of antennae) and of 1.65 ± 0.13 for the second (further than 300m of antennae), respectively. The difference between both groups of nests in this case were not statistically significant ($U = 216$; $P = 0.26$, Mann-Whitney Test U). Twelve nests (40%) located within than 200m of antennae never had chicks, while only one (3.3%) located further than 300m had no chicks. The electric field intensity was higher on nests within 200m (2.36 ± 0.82 V/m) than on nests further than 300m (0.53 ± 0.82 V/m). Interesting behavioral observations of the white stork nesting sites located within 100m of one or several cellsite antennae were carried out. These results are compatible with the possibility that microwaves are interfering with the reproduction of white storks and would corroborate the results of laboratory research by other authors.

Keywords Cellsites; Cellular phone masts; *Ciconia ciconia*; Electromagnetic fields; Microwaves; Nonthermal effects; Reproduction; White stork.

Introduction

Most of the attention on the possible biological effects of electromagnetic fields (EMF) has been focused on human health. People frequently use wildlife as biological indicators to detect the alterations in the ecosystems and in an urban

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habitat. The numeric tendency of the populations of birds is of particular interest in the conservation of nature [1].

The cellsite antennae emit a frequency of 900 or 1800 MHz, pulsed in very low frequencies, generally known as microwaves (300 MHz–300 GHz), similar to the radar spectrum. The cellsite ordinarily have 3 sectors, with 3 antennae that cover an angle of 120 degrees each [2–5]. Though they have many and varied outputs, at a distance of 50 m, the power density is about $10 \mu\text{W}/\text{cm}^2$ [2], while at distances of 100 m at ground level it measures above $1 \mu\text{W}/\text{cm}^2$ (personal observation). Between 150 and 200 m, the power density of the main lobe near the ground is typically of some tenth of $1 \mu\text{W}/\text{cm}^2$ [3].

In real life, living organisms are exposed to variable levels of electromagnetic fields (radiofrequencies), according to the distance from the cellular bases stations, the presence of passive structures to either amplify the waves (e.g., the metallic structures) or to shield them (buildings or other obstacles), the number of transmission calls within the transmitters and their position with relationship to the orientation of the antenna [2].

Animals are very sensitive electrochemical complexes that communicate with their environment through electrical impulses. Ionic currents and electric potential differences exist through the cellular membranes and corporal fluids [6]. The intrinsic electromagnetic fields from the biological structures are characterized by certain specific frequencies that can be interfered with by the electromagnetic radiation, through induction and causing modification in their biological responses [3]. Animals exposed to the EMF can suffer a deterioration of health, changes in behavior [7, 8], and changes in reproductive success [9, 10].

The low intensity pulsed microwave radiation from cellsites produces subtle athermal influences in the living organisms, because this radiation is able to produce biological responses by the microwave carrier and by the low frequency of pulses from GSM system. “Windows” exist in whereby EMFs produce biological effects at specific frequencies (window effect) [11]. Some effects are manifested exclusively with a certain power density [12], while others are manifested after a certain duration of the irradiation, which indicates long-term cumulative effects [13]. During lingering exposure, the effects can change from stimulant to inhibition, depending on the pulse shape [14, 15], the duration, development, and differentiation and the physiologic condition or health of the receiving organism [16], and their genetic predisposition [17]. These waves seem to cause different, and even contrary effects, depending on their frequency, intensity, modulation, pulses or time of exposure [12, 16, 18]. The pulsed waves (in bursts) and certain low frequency modulations, produce great biological activity [14, 15, 18]. The dose-response relationships (athermal) are nonlinear [19].

Research has shown such effects on the living organisms at molecular [12] and cellular levels [20] on immune processes [21], in DNA [22], on the nervous, cardiac, endocrine, immune, and reproductive systems [16, 23–28], modification of sleep and alteration of the cerebral electric response (EEG) [29], increase of the arterial pressure and changes in the heart rhythm [30], and an increase in the permeability of the blood brain barrier [31].

The objective of this study was to investigate if the phone mast cellsites caused effects in wild birds similar to the laboratory studies, and studies carried out on people exposed to this radiation [3, 5, 32–35].

Materials and Methods

For monitoring the breeding success of the white stork population, nests ($n = 60$) were selected and visited from May to June of 2003. The difficulty of the investigation in the field, (and when studying wild species) does not allow one to control all variables as in the laboratory; however, the selected nests had similar characteristics. They were located in the roof of churches and buildings inside urban nuclei in Valladolid (Spain). (The nests on trees and other natural supports or outside the urban nuclei were never studied.) Since the cellsite radiations are omnipresent, very few places exist with an intensity of 0 V/m near inhabited nuclei. For that reason, nests were chosen that were exposed at very high or very low levels of electromagnetic radiation, depending on the distance from the nests to the antennas.

The nests were selected and separated in two categories:

- a) Nests ($n = 30$) located within 200 m of one or several cellsite antennae (GSM-900 MHz and DCS-1800 MHz), placed in masts and in the roof of the buildings at 15–30 m high.
- b) Nests ($n = 30$) located further than 300 m of any cellsites.

The nest were observed using a prismatic Zeiss 8 × 30 and a “Leika” 20-60 X telescope. The number of young were counted.

For the analysis of the results of the reproduction, two indexes were used:

- 1) the total productivity (number of young flown by each couple, including nests with zero chicks).
- 2) the partial productivity (number of young flown by couples with some chicks, excluding nests with zero chicks).

To compare the breeding success of both groups of nests a nonparametric test was applied (Mann-Whitney test U).

Also, we measured the electric field intensity (radiofrequencies and microwaves) in V/m, using a “Nuova Elettronica” device Model LX 1435 with 10% sensitivity, from a unidirectional antenna (range: 1 MHz–3 GHz). Keeping in mind the inaccessibility of the nests, the measurements were made in their vicinity under similar conditions, recording the reproducible values obtained when directing the antenna of the device toward the cellsite antenna in line of sight.

Between February 2003 and June 2004, we carried out 15 and 10 visits, respectively, to 20 nests located within 100 m of one or several cellsite antennae to observe the behavior of the species. The visits covered all the phases of breeding, from construction of the nest, until the appearance of young storks exercising their wings and practicing flight.

Results

Table 1 presents the number of young and electric field intensity (V/m) of each studied nest.

The total productivity, in the nests located within 200 m of antennae was 0.86 ± 0.16 . For those located further than 300 m, the result was practically doubled, with an average of 1.6 ± 0.14 (Table 1). Both groups showed very significant differences in the breeding success ($U = 240$; $P = 0.001$, Mann-Whitney Test U).

Table 1
Intensity of electric field, total and partial productivity in the nests within 200 m and further than 300 m to the phone mast

Nests within 200 m			Nests further than 300 m		
Nest	Number of young	EMF (V/m)	Nest	Number of young	EMF (V/m)
1	2	0.8	1	1	0.4
2	2	0.6	2	2	0.7
3	0	0.8	3	1	1.3
4	3	1.5	4	1	1.1
5	1	1.7	5	1	0.6
6	2	2.9	6	3	0.4
7	1	3.1	7	2	0.6
8	1	1.3	8	2	0.7
9	1	1.3	9	3	0.6
10	1	2.8	10	1	0.7
11	1	1.8	11	2	0.8
12	3	3.2	12	2	0.3
13	1	1.6	13	3	0.1
14	0	2.7	14	1	0.6
15	0	2.3	15	2	0.5
16	0	2.7	16	3	0
17	0	2.5	17	2	0.3
18	0	3.5	18	1	0.8
19	0	3.5	19	2	0.2
20	0	2.7	20	0	0.8
21	0	2.9	21	2	0.2
22	2	3.2	22	1	0.6
23	0	2.5	23	1	0.5
24	1	2.6	24	1	0.7
25	1	2.4	25	1	1.4
26	0	2.2	26	2	0.1
27	1	2.6	27	1	0.1
28	1	3.1	28	2	0.2
29	1	3.1	29	1	0
30	0	3.0	30	1	0.6
Mean EMF		2.36			0.53
Total productivity		0.86		1.6	
Partial productivity		1.44		1.65	
Nests without young		12 (40%)		1 (3.3%)	

In partial productivity in average of 1.44 ± 0.16 was obtained for the first group (within 200m of antennae) and 1.65 ± 0.13 for the second (further than 300m of antennae) respectively. The difference between both groups of nests in this case was not statistically significant ($U = 216$; $P = 0.26$, Mann-Whitney Test U).

Twelve nests (40%) located within 200m of the antennae never had any chicks, while only one (3.3%), located further than 300m, never had chicks.

The electric field intensity was higher on nests within 200m (2.36 ± 0.82 V/m) than on nests further 300m (0.53 ± 0.82 V/m) (Table 1).

The results of the findings and interesting behavioral observations of the white stork nesting sites located within 100m of one or several cellsite antennae and on those that the main beam impacted directly (EFI > 2 V/m) included young that died from unknown causes. Also, within this distance, couples frequently fought over the nest construction sticks and failed to advance the construction of the nests. (Sticks fell to the ground while the couple tried to build the nest.) Some nests were never completed and the storks remained passively in front of cellsite antennae.

Discussion

The effects of athermal microwaves on birds have been well known for more than 35 years [36, 37]. Some authors obtained beneficial effects in the production of insect eggs and exposed birds, but found that the mortality was doubled [38]. In hen experiments, problems of health and a deterioration of the plumage arose, while in the autopsies, leucosis and tumors of the central nervous system appears [39]. Giarola and Krueger [40] obtained a large reduction of the rate of growth and also a reduction of the adrenal glands, in exposed chickens. Kondra et al. [41] obtained an increase in the frequency of ovulation of exposed birds, and a bigger production of eggs but with less weight, proposing that the pituitary gland was stimulated. Other authors also have obtained effects reducing the rate of growth in chickens and rats, reduction in the production of eggs in hens exposed to microwaves of different frequencies and intensities, increase of fertility, and a deterioration of the quality of the eggshell at certain frequencies [42]. An increase in the embryonic mortality of chickens also has been found [15, 17, 43, 44]. These microwave effects are athermal [45]. Recently, it also has been demonstrated that the microwaves used in cellphones produce an athermal response in several types of neurons of the nervous system in birds [46] and that they can affect the blood brain barrier as has been observed in rats [47].

Birds are especially sensitive to the magnetic fields [48]. The white stork (*Ciconia ciconia*) build their nests on pinnacles and other very high places with high electromagnetic contamination (exposed to the microwaves). Also, they usually live inside the urban environment, where the electromagnetic contamination is higher, and remain in the nest a lot of the time, for this reason the decrease on the brood can be a good biological indicator to detect the effects of these radiations.

The results indicate a difference in total productivity but not in partial productivity between the near nests and those far from the antennae. This indicate the existence of nests without chicks, or the death of young in their first stages in the nests near cellsites (40% of nest without young, compared to 3.3% in nests further 300m). Also, in the monitoring of the nests near to cellsite antennae, some dead young were observed and several couples never built the nest.

In previous studies in Valladolid, the results of productivity were generally higher than those obtained in this study and less nests appeared without young (Table 2).

Consistent with these results, the microwaves could be affecting one or several reproductive stages: the construction of the nest, the number of eggs, the embryonic

Table 2
Results of censuses carried out in Valladolid (Spain).

Year	Number of visited nests	Total productivity	Partial productivity	Couples without young(%)	References
1984	113	1.69	2.13	7	[65]
1992	115		1.93	5.2	[62]
1994	24	1.84		7.6	[63]
2001	35		2.43		[64]
2003 (<200 m)	30	0.83	1.44	40	This study
2003 (>300 m)	30	1.6	1.65	3.3	This study

development, the hatching or the mortality of chicks in their first stages. The faithfulness of the white stork to nest sites can increase the effects of the microwaves. A Greek study [49] relates to a progressive drop in the number of births of rodents. The mice exposed to $0.168 \mu\text{W}/\text{cm}^2$ become sterile after 5 generations, while those exposed to $1.053 \mu\text{W}/\text{cm}^2$ became sterile after only 3 generations. The interaction seems to take place through the central nervous system more than on the reproductive gland directly. Other studies find a decrease of fertility, increase of deaths after the birth in rats and dystrophic changes in their reproductive organs [16]. A recent study shows a statistically significant high mortality rate of chicken embryos subjected to the radiation from a cellphone, compared to the control group [43]. EMF exposure affected the reproductive success of kestrels (*Falco sparverius*), increasing fertility, egg size, embryonic development and fledging success but reduced hatching success [10]. An increase in the mortality [50] and the appearance of morphological abnormalities, especially of the neural tube [14, 15, 17] has been recorded in chicken embryos exposed to pulsed magnetic fields, with different susceptibility among individuals probably for genetic reasons. It is probable that each species, even each individual, shows different susceptibility to the radiation, since the susceptibility depends on the genetic bias, and of the irradiated living organisms physiologic and neurological state [4, 51]. Different susceptibility of each species also has been proven in wild birds exposed to CEM from high-voltage powerlines [9]. When the experimental conditions (power density, frequency, duration, composition of the tissue irradiated, etc.) change, their biological effects also change [25, 52]. Microwaves have the potential to induce adverse reactions in the health of people [2–5, 34, 35, 47]. Although the power output differs per site and type of transmitter, at more than 300 m distance from the antennas, most of the symptoms recorded in people diminish or disappear [34, 35]. It also has been pointed out that below 0.6 V/m the effects on the people disappear (Salzburg resolution).

Since, we cannot see symptoms for white storks, it is necessary to use objective variables such as the Total and Partial Productivity, and other characteristics of behavior (nonconstruction of nest, sticks fall, etc.). We recommend electromagnetic contamination in the microwave range be considered a risk factor in the decline of some populations, especially urban birds, especially when exposed to higher radiation levels. Because of their thinner skull, their great mobility and the fact that they use areas with high levels of microwave electromagnetic radiation, birds

are very good biological indicators. The freedom of movement of birds and their habit of settling in the proximity and even on the cellsites, makes them potentially susceptible to such effects. Small organisms (children, birds, small mammals, etc.) are especially vulnerable, as absorption of microwaves of the frequency used in mobile telephones is greater as a consequence of the thinner skull of a bird, the penetration of the radiation into the brain is greater [2, 49, 53, 54].

Several million birds of 230 species die annually from collisions with the masts of telecommunication facilities in United States during migration [55]. The cause of the accidents has yet to be proven, although one knows that they mainly take place during the night, in fog, or bad weather. The birds use several orientation systems: the stars, the sun, the site-specific recognition and the geomagnetic field [48]. The illumination of the towers probably attracts the birds in the darkness, but it is possible that the accidents take place in circumstances of little visibility, because at the time, other navigational tools are not available. The perception to the terrestrial magnetic field can be altered by the electromagnetic radiation from the antennae. The reports of carrier pigeons losing direction in the vicinity of cellsites are numerous, and more investigation is necessary.

In the United Kingdom, where the allowed radiation levels are 20 times higher than those of Spain, a decline of several species of urban birds has recently taken place [56], coinciding with the increasing installations of cellsites. Although this type of contamination is considered at the present time by some experts as the most serious [4], inspection systems and controls have never been developed to avoid their pernicious effects on living organisms. Some of the biological mechanisms of the effects of these waves are still ignored [12], although the athermal effects on organisms have been sufficiently documented. The telephone industry could be taking advantage of the complexity of the biological and physical processes implied, to create an innocuous atmosphere, repeatedly denying the existence of harmful effects in living organisms. For this reason the reports related to animals are of special value, since in this case it can never be alleged that the effects are psychosomatic [3].

Future investigation should be carried out with long-term monitoring of the breeding success, of the sleeping places and of the uses of the habitat for species more vulnerable to the microwaves. Of special interest should be investigations that try to make correlations with the radiofrequency electromagnetic field measurements. Field studies investigating populations of urban parks and territories surrounding cellsites should be a high-priority. A radius of 1 sq K and the layout of concentric lines at intermediate distances can be useful to investigate differential results among areas depending on their vicinity and the radiation levels. We consider that the birds most affected from the microwave electromagnetic contamination could be:

- 1) those bound to urban environments with more sedentary customs, in general those that spend more time in the vicinity of the base stations;
- 2) those that live or breed in high places, more exposed to the radiation and at higher power density levels;
- 3) those that breed on open structures where the radiation impacts directly on adults and chicks in the nest;
- 4) those that spend the night outside of holes or structures that attenuate the radiation.

In far away areas, where the radiation decreases progressively, the chronic exposure can also have long term effects [13, 49]. Effects from antennas on the habitat of birds are difficult to quantify, but they can cause a serious deterioration, generating silent areas without male singers or reproductive couples. The deterioration of the ecosystem can also take place from the impact of the radiation on the populations of invertebrate prey [54, 57, 58] and on the plants [59].

Bioelectromagnetics is historically a frontier discipline. Controversy is frequent when the scientists recognize serious effects on health and on the environment that cause high economic losses. Independent investigators state the necessity of a drastic reduction of the emitted power levels on people and the ecosystems and that it is technically viable although more expensive for the industry [4, 22, 60]. Our opinion is that areas of continuous use should never exist at the height of the antennas either inside the beam or within a radius of several hundreds meters. The restriction to exposure to fauna presents special complexity; the main reason for the drastic reduction in the emission power of the antennae is presented as the only viable and effective solution to prevent these effects. Some authors have already propose that we are witnessing a paradigm change in biology [61].

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Chairman John S. Garment and
Members of the Planning Board
City of White Plains
255 Main Street
White Plains, NY 10601

April 15, 2008

RE: MetroPCS New York, LLC
Wireless Telecommunications Facility
(NY6054) Premises: 30 Lake Street, White
Plains, New York; Tax Id.: Section 126.53,
Block 5, Lot 1

Dear Chairman Garment and Members of the Planning Board:

This letter is respectfully submitted on behalf of a White Plains community civic organization ("Neighbors Against Cell Towers" – NACT) in opposition to the above-referenced application. Members of NACT include a number of long-time residents of the subject premises at 30 Lake Street in White Plains.

NACT disputes and challenges as false and misleading the following material claims made by MetroPCS in its submission dated February 28, 2008:

Misrepresentation No. 1: "Metro PCS's proposed location of a wireless facility on the Premises will have a *de minimus* impact on the surrounding neighborhood."

The described function of the proposed MetroPCS facility is to receive and transmit RF signals from various mobile devices, and then to provide "substantial coverage" of those RF emissions in the surrounding area. The applicant's description of the surrounding area is "high density homes as well as commercial buildings." (Exhibit C – Sharpe affidavit). The application makes no mention of the fact that the immediate area includes the Eastview Middle School, less than 500 feet in a direct line from the proposed MetroPCS facility.

The school has a daily student population of about 200 pre-Kindergarten students (age 4 years) and 450 to 500 6th to 8th graders (age 11 to 14). There is also a "New Comers" second language program for additional young students at the school. These are among the most vulnerable formative ages of children in their growing years when they are susceptible to outside forces that can affect their health over their full lifetimes.

Exhibit B

Many of the Eastview Middle School students travel along streets and sidewalks on their daily trips to and from school directly below the proposed MetroPCS antennas.

The applicant does not describe any special measures to achieve a “*de minimus*” impact on these school-age children or on the residents of 30 Lake Street or surrounding residential buildings, including senior citizens and persons in poor health.

The scientifically accepted and recommended way to reduce the impact of RF radiation is by application of the “Precautionary Principle” described and discussed in the attached evidentiary Exhibits 1 and 2. The Precautionary Principle should be adopted as the policy of White Plains to minimize human exposure to RF radiation, and to protect all young schoolchildren by keeping RF transmitters as far away from schools as possible, while still maintaining basic cell phone coverage.

Submitted herewith as Exhibit 3 is an Amicus Curiae brief filed in the United States Supreme Court by the non-profit Healthy Schools Network, describing some of the health concerns for young students exposed to RF radiation, with citations to relevant scientific studies.

There is no evidence in the record that MetroPCS intends to take any special steps to protect the residents of 30 Lake Street, particularly those residing on the upper floors and those using the roof terraces, from the risks from close proximity to the antennas and transmitter proposed to be installed on the roof of the building.

In short, there is no evidence whatsoever in the description of the proposed antenna installations that MetroPCS has made any effort to achieve a “de minimus impact” on nearby residents, or on the students, teachers and parents of the Eastview Middle School. MetroPCS’s application should be rejected on this ground alone.

Misrepresentation No. 2: “There is a public need for wireless telecommunication services, as evidenced by the granting of a license to MetroPCS by the FCC.”

The MetroPCS application and letter of February 28, 2008, does not satisfy the statutory requirement of “public necessity” for the proposed facility. It attempts to mislead the Board into believing that because it has paid a fee and obtained a routine license from the FCC that the FCC has actually investigated and approved the proposed 30 Lake Street wireless telecommunications facility. An examination of the license will show that this is plainly not true. The Second Circuit U.S. Court of Appeals has held that to meet the “public necessity” requirement for a new telecommunications installation:

The applicable standard was articulated by the New York Court of Appeals in Consolidated Edison Co. v. Hoffman, which concerns the showing that a utility must make under New York law before a zoning board may grant a use variance.

43 N.Y.2d 598, 611, 403 N.Y.S.2d 193, 374 N.E.2d 105 (1978); see also Cellular Tel. Co. v. Rosenberg, 82 N.Y.2d 364, 371, 604 N.Y.S.2d 895, 624 N.E.2d 990 (1993) (applying the Consolidated Edison test to cell phone company's application to build a new cell site).

Under the Consolidated Edison 'public necessity standard, a utility must show that (1) its new construction 'is a public necessity in that it is required to render safe and adequate service', and (2) 'there are compelling reasons, economic or otherwise, which make it more feasible' to build a new facility than to use 'alternative sources of power such as may be provided by other facilities.' Id. at 371-72, 604 N.Y.S. 2d 895, 624 N.E.2d 990"

Omnipoint Communications, Inc. v. City of White Plains, 43 F.3d 529 (2d Cir. 2005)
(Emphasis added.)

MetroPCS has made no attempt in its application to satisfy these basic legal requirements, and we submit that the Board therefore may not issue the requested Special Permit as a matter of law.

Furthermore, there is ground to believe that adding additional frequencies to the RF radiation bombarding schoolchildren will increase the risk of harm to those children, caused by resonance of RF signals within body organs and human cells. The Precautionary Principle argues against creating such additional exposure and risk.

Misrepresentation No. 3: "MetroPCS's proposed Facility will benefit the public health, safety and general welfare."

Benefiting public health, safety and general welfare is one of the basic criteria for compliance with the White Plains Zoning Ordinance (Section ____). MetroPCS's claim that the proposed Facility will "benefit" the public health is wholly unsupported and is refuted by countless scientific studies of RF radiation from all around the world. A sampling of studies indicating adverse effects on human health from nearby RF transmitters will be found in the NACT Exhibits that constitute substantial evidence that RF transmitters ["base stations"] have repeatedly been found to have an adverse effect on public health

It should be particularly noted that the applicant has submitted (as Exhibit D) an "Antenna Site FCC RF Compliance Assessment and Report" prepared by an outside consultant which contains the following statement in its "Compliance Conclusion":

The FCC MPE limit has been constructed in such a manner that continuous human exposure to RF fields up to and including 100 percent of the MPE limit is acceptable and completely safe.

(Emphasis added.)

This is a wholly misleading claim. What the consultant is talking about is the absence of harmful thermal effects of FCC approved power levels for RF emissions, not low-power RF emissions and their biological effects on human beings. As demonstrated by every one of NACT Exhibits 1-9, there is substantial scientific evidence from experts around the world that low-power RF radiation produces potentially harmful non-thermal health effects up to and including cancer. None of these effects is presently addressed by the FCC safety standards. The applicant's misuse of the paid consultant's statement claiming these antennas are "completely safe" together with the applicant's unqualified claim that the facility will "benefit public health" are demonstrably misleading and improper.

Misrepresentation No. 4: "Mandate of the Telecommunications Act of 1996."

The purported description of the Telecommunications Act of 1996 submitted with the application letter of February 28, 2008, contains a major misstatement of the language of the law. The applicant's summary states:

(4) local regulations may not regulate the placement, construction or modification of personal wireless service facilities on the basis of the "environmental effects of radio frequency emissions" so long as the facilities meet standards set by the FCC.

(Emphasis added.)

The actual wording of the law, 47 USC § 332(c)(7)(B) is this:

(iv) No State or local government or instrumentality thereof may regulate the placement, construction, and modification of personal wireless service facilities on the basis of the environmental effects of radio frequency emissions to the extent that such facilities comply with the Commission's regulations concerning such emissions.

(Emphasis added.)

The difference between "so long as" and "to the extent that" is of major significance to this application.

The proposed facility will not meet any FCC regulations for non-thermal effects, because no FCC non-thermal safety standards exist.

"To the extent that" the FCC regulations are complied with, it is true that the Board cannot consider thermal environmental effects of the radio frequency emissions. That is not the issue NACT is raising here. Here the issue is the non-thermal effects on children and adults who will be subjected to continuous and long-term exposure to the RF emissions from the proposed facility. Despite efforts to persuade the FCC to expand its regulations to cover non-thermal effects, the agency has refused to do so – leaving the

field unregulated. These non-thermal environmental effects of radio frequency emissions are not covered by any FCC regulation. See EMR Network v. FCC, 391 F.3d 269 (D.C. Cir. 2004).

The City of White Plains has both an opportunity and an obligation to protect its residents from the non-thermal effects of radio frequency emissions established by the substantial evidence in the recent scientific studies described in Exhibits 1-9. There is a strong case to be made that these considerations, including the Precautionary Principle, are not preempted by the Telecommunications Act of 1996.

CONCLUSION

The MetroPCS application for issuance of a Special Permit and approval of its Site Plan under the City of White Plains Zoning Ordinance must be denied based on the substantial evidence submitted herewith, together with the misleading statements in the applicant's letter on February 28, 2008.

Respectfully submitted,

Whitney North Seymour, Jr.

Attachments:

Exhibit Index and
NACT Exhibits 1 to 9.
(in separate binder)

Exhibit Index

Ex. 1 Benevento Resolution (2006)

Ex. 2 BioInitiative Report, Section 17 (2007)

Ex. 3 Healthy Schools Network Amicus Brief (2006)

Ex. 4 UK Health Study Summary (2007)

Ex. 5 AUSTRIA Health Study (2006)

Ex. 6 GERMANY Health Study (2005)

Ex. 7 FRANCE Health Study (2003)

Ex. 8 SPAIN Health Study (2003)

Ex. 9 NETHERLANDS Health Study (2003)

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**CONNECTICUT SITING COUNCIL
INTERVENOR STATUS REQUEST FORM**

Docket/Petition No. 360

Town/City: Falls Village (Canaan)

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RECEIVED
JUN 4 - 2008
CONNECTICUT
SITING COUNCIL

1. Manner in which petitioner claims to be substantially and specifically affected:

I have two small children and live near the proposed site. I have late-stage chronic Lyme disease that has compromised my immune system. I am electro-sensitive. The Town of Canaan, along with its Fire Department, is required to protect the health, safety and welfare of its citizens and taxpayers and has failed to do so by approving the illegal agreement for the proposed erection of this proposed tower.

In addition, the Falls Village Volunteer Fire Department, instead of protecting the best interests of the community, has granted permission for the erection of the proposed tower on its property, notwithstanding studies showing that proximity to a fire station reduces the effectiveness, response and judgment of fire fighters.

It is my understanding that there is already sufficient cell coverage at the proposed site.

I live in the 1735 National Register Listed Hosford Homestead house. There is no mention of this historic property in the Application.

Additionally, the CSC is required to enforce international, national and state environmental protection laws for the protection of birds and wildlife in our unique ecology on Beebe Hill. Among other considerations, this is a major migratory bird flyway and habitat for birds and wildlife. The location is surrounded by natural areas and protected wetlands and is home to a number of listed and endangered species.

The Applicant claims that there will be no adverse environmental effects from the emissions transmitted from the proposed tower, but there is no scientific basis for such a claim, therefore their application must be denied.

Exhibit C



The Applicant claims that the proposed tower meets all FCC standards for safety, but the FCC has never set safety standards for the non-thermal effects of ELF from cell transmission towers, therefore that claim cannot sustain the substantial evidence required to allow the permit for the tower.

Both of my parents have had cancer, and my mother recently died from cancer. My concerns are real and my interest is personal because of the lack of scientific proof or application of any safety standard on the biological non-thermal effects of cell emissions recognized the world over for destroying DNA, possibly causing the cell mutations that lead to cancer. My 7-year-old daughter has been diagnosed with ADD (Attention Deficit Disorder), a neurological development issue that could be exacerbated by exposures to harmful influences such as ELF. Since my own immune system is already compromised, and my children's bodies are still developing, the potential for harm to them and me is greater than it is for the public at large and requires reasonable limitations on the placement of cell towers and the application of the principle of "prudent avoidance."

The same prudent avoidance should be applied to the location of any tower in proximity to any school for small children. As a board member of the Falls Village Children's Theatre Company, I am concerned about the safety of my charges in the program who attend the Lee H. Kellogg Elementary School in Falls Village.

Finally, the procedures of the Connecticut Siting Council violate my Fourteenth Amendment rights as a citizen, and those of my children, and reduce the value of my property by posing known and unknown health hazards to the occupants, residents, and prospective buyers thereof.

For all of the foregoing reasons, I oppose the granting of this permit and wish to be heard.

2. Manner and extent to which petitioner proposes to participate:

I request the opportunity to be heard as a full participant in a meaningful hearing on the issues above and to provide the Council substantial evidence in their record at this hearing for the purposes of demonstrating that this application is fraudulent, misleading, mistaken in fact, mistaken in law, and based on an illegal agreement.

Copies of this request shall be mailed to all participants at least five (5) business days before the date of the hearing.

Signed 

Date: 6/2/08