

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Notice of Proposed Rulemaking	)	
18 FCC Rcd 13187, 13188 ¶1 (2003)	)	ET Docket No. 03-137
	)	
And	)	
	)	
Service Rules for the Advanced Wireless Services	)	WT Docket No. 12-357
	)	
H Block---Implementing Section 6401 of the	)	
Middle Class Tax Relief and Job Creation Act of	)	
2012 Related to the 1915-1920 MHz and	)	
1995-2000 MHz Bands ¶53 footnote 95	)	

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

Reply Filed by: Catherine Kleiber  
N9387 Riverview Dr.  
Waterloo, WI 53594  
kleiber@gdinet.com  
(920) 478-9696

February 18, 2013



*mobile phone base station studies to cause bioeffects.*”(<http://www.bioinitiative.org/conclusions/>) Since the FCC lacks the expertise to establish meaningful biologically-based safety limits, it is the duty of the FCC to advocate for allocating funding and authority to the EPA to establish biologically-based safety limits. 2012 HR6358 exists as a model of legislation to do just that.

9. My family’s on-going health nightmare, caused by the presence of biologically active levels of radiofrequencies on the electrical grid and radiofrequency radiation transmitted into the environment through use of wireless technology, is illustrative of why it is essential that the EPA finally be empowered to establish biologically-based radiofrequency radiation safety limits.
10. I have radiowave sickness. (See Dodge, incorporated by reference herein in its entirety [http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge\\_1969.pdf](http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf)) It was originally misdiagnosed as chronic fatigue syndrome. However, once I found out I was being exposed to large amounts of high frequencies from electrical pollution, including “dirty” power on my wires and plumbing, and reduced that exposure as much as I was able, I began to recover almost immediately.
11. Here is a brief summary of symptoms I experienced during my high frequency related illness: heart palpitations, very pain sensitive, constant nerve pain, sluggish reactions, poor depth perception, muscle weakness, lactic acid buildup with little exertion, unrefreshing sleep, often wakeful in the night, fatigue, night sweats, poor circulation to my extremities, reflux, difficulty concentrating, difficulty thinking, inability to make decisions, low-grade fever and chills, headaches, and a dry sore throat.
12. We have reduced our exposure as much as possible. I was well at home until smart meters on our neighbors’ homes, power line communications frequencies, and 4G cell service increased our exposure enough that I began once again to experience symptoms even while in our home. We have taken additional steps to reduce our exposure to the pulse modulated microwave radiation used in wireless technology and high frequency power line communication signals.
13. I get sick again whenever I am around higher levels of high frequencies such as when I go into town or go over to friends’ homes. The degree of sickness and the exact symptoms vary depending on the duration and strength of the exposure, as well as the particular frequencies to which I am exposed.
14. We have two small children whom we are homeschooling so they will not be exposed to dangerous high frequency environment in our local public school (Waterloo, WI). The school has both WiFi and high electrical pollution levels.
8. Our children both experience health problems when exposed to high frequencies. They feel sick, become hyperactive, less able to think logically and control their behavior. They also sleep poorly in bad high frequency environments. The recent

increase in radiofrequency radiation exposure has given them chronic cardiac arrhythmias.

9. The drastic measures we have taken to reduce their exposure has momentarily stabilized them at about early stage 2 radiofrequency sickness. (See Dodge) We are very concerned that any increase in the radiofrequency radiation levels could again push them over the edge toward stage 3 radiofrequency sickness. They should not be involuntarily exposed to a pollutant that has such profound detrimental effects on them.
10. I have maintained the website [www.electricalpollution.com](http://www.electricalpollution.com) since 2002, shortly after I discovered that the high frequencies present on building wiring and flowing across the ground from non-linear time varying loads were making me, and others, sick. Research on the health effects of electrical pollution is available on the website on the Research Page. More technical information is available on the Technical Page. Electrical pollution is a very potent form of exposure to high frequencies. Exposure to all forms of high frequencies, including electrical pollution, must be included in standards regulating exposure of the general public to protect the public health during continuous exposure.
11. Because of the serious effects exposure to high frequencies has on our health, we do not own a cellphone, cordless phones, wireless router, baby monitors, or subscribe to wireless internet.
12. I have read widely on the research into the health effects of exposure to high frequencies. I believe that the increased exposure to high frequencies from radiowave and microwave transmitters and from electrical pollution are behind the public health crisis that has dramatically increased utilization of our medical system for chronic conditions. The recent article by Halberg and Johansson in *Pathophysiology*<sup>1</sup> supports this contention. The comprehensive review by Dr. Cherry, which documents health effects and explores mechanisms, besides thermal mechanisms, through which microwave and radiowave radiation can impact health, also supports my contention that exposure to microwave and radiowave radiation is a public health threat which is probably contributing to significant public illness. A review of the Soviet literature on radiofrequency sickness by Christopher Dodge<sup>3</sup> of the Naval Observatory discusses radiofrequency sickness in detail. The symptoms attributed to chronic exposure to radiofrequency radiation mirror the deterioration of health being seen in the U.S. in recent years, probably due to the dramatic increase in exposure to radiofrequencies from electrical pollution and wireless technology. Papers by Dr. Milham<sup>4</sup>, Dr. Havas<sup>5,6,7</sup> and Dr. Wertheimer<sup>8</sup> also show that exposure to electrical pollution constitutes a public health threat, as does a report by Char Sbraggia regarding health improvements experienced by teachers and students when the electrical pollution in their school was cleaned up (MelMinNurse.pdf). These are just a few of the papers I have read. However, they provide a picture which should illustrate the need for precautionary action to halt the expansion of public exposure to high frequencies until safety standards can be established to prevent health problems in the general

population during continuous exposures to high frequencies, taking into account all sources of exposure.

1. Ö. Hallberg, O. Johansson, Apparent decreases in Swedish public health indicators after 1997 — Are they due to improved diagnostics or to environmental factors? *Pathophysiology* (2009)
  2. Cherry, N. 2000 Criticism of the Health Assessment in the ICNIRP Guidelines for Radiofrequency and Microwave Radiation (100 kHz- 300 GHz)
  3. Dodge C. Clinical and Hygienic Aspects of Exposure to Electromagnetic Fields. *Biological Effects and Health Implications of Microwave Radiation*, Symposium Proceedings, Richmond, Virginia, September 17-19, 1969.
  4. Milham S, Morgan L. 2008 A New Electromagnetic Exposure Metric: High Frequency Voltage Transients Associated With Increased Cancer Incidence in Teachers in a California School. *American Journal of Industrial Medicine*.
  5. Havas M, Olstad A. 2008. Power quality affects teacher wellbeing and student behavior in three Minnesota Schools, *Science of the Total Environment*, July.
  6. Havas M. 2006. Electromagnetic hypersensitivity: biological effects of dirty electricity with emphasis on diabetes and multiple sclerosis. *Electromagnetic Biology Medicine* 25(4): 259-68.
  7. Havas M. 2008. Dirty Electricity Elevates Blood Sugar Among Electrically Sensitive Diabetics and May Explain Brittle Diabetes. *Electromagnetic Biology and Medicine*, 27:135-146.
  8. Wertheimer N, Savitz DA, Leeper E. 1995 Childhood Cancer in Relation to Indicators of Magnetic Fields from Ground Current Sources *Bioelectromagnetics* 16: 86-96.
13. I knew that an increase in levels of transmitted radiofrequency and microwave radiation would be very detrimental to my health and that of my family and would further impair our ability to live a normal life.
14. Therefore, we refused installation of the We Energies AMR meters, which transmits a spike of microwave radiation (approximately 1800  $\mu\text{W}/\text{m}^2$ ) every 6 seconds 24 hours a day, 7 days a week, on our two electrical services.
15. I asked for reasonable accommodation under the ADA because I knew that my children and I experience environmentally induced functional impairment with exposure to radiofrequency radiation, including the pulsed modulated microwave radiation utilized by the We Energies AMR meters.
16. My initial request was denied verbally by the PSC and in writing by We Energies.
17. We had to turn away at least one installer who came to install meters after we were on the record with We Energies and the PSC as not wanting an AMR meter installed.
18. We were concerned that we would find AMR meters installed despite our clearly expressed refusal to have AMR meters, so we padlocked our meter pedestals and installed clearly worded permanent signage.

19. In response to our continued refusal to allow installation of the meter, we were threatened with disconnection. (See WeEnergies9Dec2011.pdf)
20. Both We Energies and the PSC maintained, over the phone and at the meeting with the legislators, that we had three choices and represented them as accommodation.
  1. Take the AMR meters.
  2. Take the AMR meters and move them anywhere on our property at our considerable expense (thousands of dollars to move them even short distances).
  3. Get off-grid.
21. We do not consider these choices to have been any form of accommodation since we could not have moved the meters far enough to protect our health. Also, the radiofrequencies the meters produce get on the wires, essentially turning the house into a low-power microwave. This proved to be a problem even though our nearest neighbor is over half a mile away. Having two meters of our own would have worsened the effect.
22. We consider the refusal to accommodate us and the threat to disconnect us to have been bullying and intimidation on the part of We Energies and the Wisconsin Public Service Commission.
23. A group of us met with state legislators (Sen. Grothman, Rep. Jorgensen, and Connie Schulze, a staff-member of Sen. Darling's, who were supportive, but unwilling to sponsor legislation to help us.
24. I called numerous federal agencies - to no avail.
25. In March 2011, we received a letter from We Energies threatening to disconnect us within 48 hours for denying them access to the meter pedestal, which we own. This, in spite of the fact that, during a conversation about the supposed safety issue and the fact that We Energies can easily disconnect power to our farm at our transformer in case of an emergency, Tom Held (Supervising Engineer Meter Technology) concurred saying "I know. They can pull the fuse."
26. We had been customers in good standing.
27. Again we appealed to the PSC for accommodation under the ADA (PSCMarch2011WEcutoff.pdf) and asked that they address the radiation coming off of our transformer and causing cardiac arrhythmia for our son, only to be told that they would stand by and watch us disconnected, although they would make We Energies wait until after April 15. They did not address the dangerous radiation at all.
28. After consulting multiple lawyers, realizing that the sole power to provide or deny accommodation resided with the PSC, and even being told outright by one lawyer that

our best bet was to get off the grid, we began making preparations -at considerable expense- in case we were forced off-grid, fighting all the while.

29. We got a propane refrigerator, a pilot light gas stove, installed a gravity flow hot water heating system, acquired a generator to run our commercial freezer and installed a solar photovoltaic system to run a new DC well pump and sump pumps and converted our computer to run on DC.
30. We felt that the PSC was in violation of its own statutes in standing by and watching customers in good standing get disconnected and that We Energies was in violation of the law, but with no one to defend us, we had no recourse other than the one easily accessible public forum - a Letter to the Editor. (We had contacted various legal organizations including the ACLU, Public Citizen, Common Cause, and NRDC. All said that they have limited funding and they had never heard of this before. News outlets were similarly uninterested - utilities and telecom companies provide substantial funding through advertising or outright ownership.) We did also reply to the PSC.
31. The PSC once again refused to exercise their right to stop We Energies from disconnecting us for refusing the transmitting meter.
32. The PSC refused to accommodate us in large part because the AMR meters were supposedly in compliance with FCC radiofrequency limits (see PSC27Apr2011reDATCP.pdf), in spite of the fact that FCC limits were never intended to protect anyone from the biological effects we experience. Compliance with FCC limits has been used to force many many people from across the country to have devices which compromise their health.
33. After we wrote the letter to the editor, Sue Crane, Manager Special Projects at We Energies contacted us and asked that we remove the padlock stating that she would personally guarantee in writing that the meters would not be changed for 6 months.
34. We are currently essentially housebound, unable to spend significant time in houses or businesses which have transmitting meters, which includes almost every electrical service in our area.
35. Due to the detrimental health effects that we experience, we are unable to visit friends and relatives who have transmitting meters.
36. My mother and father-in-law tried to refuse to take a transmitting meter so we would still be able to visit and were bullied into taking the meters by a disconnect threat. We can no longer visit. Our one try was cut short by our younger son feeling so ill that he was crying and begging to leave - in spite of it being Christmas with relatives, presents, and candy.

37. On October 8, 2011, we sent letters to the PSC and We Energies requesting that they remove our electrical service since they had repeatedly ignored our requests to address the problems on their system that were causing large amounts of very high frequency radiation to radiate off of our transformer and our house wiring.
38. We had been forced to sleep in a tent a half mile from our home site (and at least that from other electrical services) from the end of July through October 13, 2011 - the start of early deer hunting season - in order to stabilize our sons' cardiac health. (From the start of deer hunting until the secondary wires were removed on October 19, 2011 we slept in the bed of our full-sized truck parked in our metal machine shed with the openings facing the transformer electrically shielded and the bed opening away from the transformer. The electrical service to the shed was already disconnected thus preventing it from conducting the radiofrequencies in.)
39. Both sons were affected, although our younger son was affected more severely. After initial tachycardia incidents which we became aware of in the fall of 2010, they moved on to irregular heartbeat and heart rate which finally got quite slow and irregular, particularly during sleep. Additionally, Holter monitoring found that both boys had sinus arrhythmia. This is consistent with the descriptions of stages one and two of radiofrequency sickness in Dodge (attached). On a Holter monitor, our younger son only had a high of 242 bradycardia incidents hourly at the tent versus 1637 hourly at home. Our older son had a high of 165 bradycardia incidents hourly at home with no comparable due to a mistake on part of the hospital. Our younger son's heart rate got so slow one night when we were forced by broken tent poles to sleep at home that he lost bladder control, wetting only his underwear because the volume of urine was so small. When I went to him in response to his call, he was agitated and upset, but his heart rate was very slow and the beats were weak and irregular. This continued for a couple of hours. We did not sleep in the house again after that until after the secondary lines were removed.
40. The deterioration in our health began shortly after the smart meters were installed in our area. Strong power line communication signals (likely related to broadband over power lines) in the 12.4 to 13.2 MHz and 25.5 to 26.3 MHz range radiating from our end of the line transformer and our home wiring seem to have been the final straw.
41. Signals in the 1 MHz to 80 MHz range used for broadband over power lines are not supposed to cross the transformer. However, what happens when the signal hits the end of the line has not been considered as far as I know. Our experience suggests that it radiates and does cross the transformer enough to radiate off of the wiring and plumbing throughout the house at biologically-harmful levels.
42. We are now off-grid to try to protect our family's health.
43. After going completely off-grid, I had three heavenly weeks. I slept well, felt well, and had lots of energy. Our pets' health improved. Most importantly, our sons'

cardiac rhythms had almost completely normalized and I was not awakened in the night.

44. Then, in early January 2012, 4G cellphone service was installed in our area. Within a week, our sons' cardiac rhythms were again highly irregular. Our younger son was again waking us in the night crying, sweating profusely, and feeling unwell with a highly irregular cardiac rhythm. He was also clingy and fussy during the day.
45. My husband screened all the windows with aluminum screen to reduce his exposure. Again, he slept through the night and was less clingy, but their cardiac rhythms remained irregular.
46. We cannot completely escape the constant exposure from neighbors transmitting utility meters, 4G cellphones, and the power line frequencies which still radiate from the junction box down the road that terminates the line.
47. As 2012 passed, we had to do more and more shielding to compensate for the ever increasing levels of radiation from wireless technology. We have had to restrict the amount of time our outdoors-loving sons can be outside. They are now only able to be out an hour a day. If they are out more than that with any regularity their cardiac arrhythmias become severe enough that they become clingy and we are awakened in the night.
48. I often wonder how I am going to do the animal care, yard care, and gardening that I need to do in the course of the year. How can I fit duties that usually take me 6-8 hours daily into the one hour they can be outside without triggering more serious cardiac arrhythmias? How can I perform the physical labor I always have and must do to earn our living with my heart often not beating efficiently, due to the radiofrequency radiation levels? How long before radiofrequency radiation levels climb high enough that being outside at all is dangerous and even being inside does not offer enough protection? Who could take care of and protect my boys if anything happened to me?
49. I worry that I will run out of shielding options to protect my sons before meaningful biologically-based safety limits put an end to the insane increases in radiation exposure occurring rapidly now as usage of wireless technology increases. Radiofrequency sickness is serious and is life-threatening if it is not able to be properly treated by avoidance once it occurs.
50. The FCC is jeopardizing the health and lives of our children, and millions of others across the country, by not having meaningful biologically-based safety limits for radiofrequency radiation.
51. We do not want to continue to be guinea pigs for the government-sanctioned rollout of new technologies with insufficient safety standards. We do not want to continue to be part of the experiment being involuntarily carried out on the American people

verifying the results of decades old research showing that the long-term health effects of these wireless signals can be profound and dangerous. (See Dodge)

52. The levels of radiation our family experiences on a daily basis from transmitting utility meters, wireless broadband, cellphones, cell towers, and other sources, - WITHOUT OUR PERMISSION - is already causing serious daily health problems for us.
53. Without conservative safety standards designed to protect the public health of our entire population during continuous exposures from all detrimental health effects and the rigorous enforcement of such standards, we fear the long-term hazards to our family's health.
54. We have a right to be safe in our homes and our schools and workplaces, and we have a right to current safety standards based on current science, not mistaken assumptions (the thermal model) and wishful thinking.
55. The existing FCC radiofrequency radiation exposure limits are way too high. Severe biological effects occur at far lower levels, as demonstrated by my family's experience, as well as in studies. If the FCC persists in ignoring this fact and does not adopt biologically-based radiofrequency radiation safety limits, it will be directly responsible for the ill health, even death, of millions of people. (See the 2012 BioInitiative Report - <http://www.bioinitiative.org/> - for mechanisms and diseases for which links have been made in recent scientific literature and Dodge - incorporated by reference herein in its entirety [http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge\\_1969.pdf](http://www.magdahavas.com/wordpress/wp-content/uploads/2010/08/Dodge_1969.pdf) - for connections made over 40 years ago.)
56. I reaffirm that the information contained in the paragraphs above are true and correct.
57. End of affidavit.

Dated this eighteenth day of February 2012.