



Dear Detroit Public School Community District,

We write to you regarding the placement of cell towers on school property. Cell towers should not be placed near schools and homes. Safety is not assured even if the cell tower is compliant with FCC limits.

We were sent a letter involving the Detroit School Board in which there was a reference to the FCC and FDA as providing research or safety data on cell towers.

The DPSCD email stated, “We intend to review and share expert information as it is comprehensively received, an as part of our protocol for making that sure we remain aware and responsive to any issues associated with these towers, we follow the US Food and Drug Administration reports, as they are responsible for ensuring the safety of such usage and exposure of electronic products such as cell phones.”

However, the FDA has no authority regarding cell towers. They have not researched the issue of cell tower radiation. The FDA has no science on cell tower radiation, base station radiation nor on 5G's newer frequencies. Nor has the agency evaluated the full body exposure and impacts such as impacts to memory, learning, prenatal impacts and oxidative stress.

A January 11, 2022 letter by Ellen Flannery of the Director of the FDA Office of Policy Center for Devices and Radiological Health confirms the absence of FDA authority and research in the area. When asked about 5G “small” cell tower safety by a California mother who had a wireless facility in front of her home, FDA’s Flannery responded, “The FDA does not regulate cell towers or cell tower radiation. Therefore, the FDA has no studies or information on cell towers to provide in response to your questions.” [Link to FDA’s Ellen Flannery Letter.](#)

On March 31, 2023 FDA Ombudsperson Abiy Desta wrote EHT’s Theodora Scarato, “*Please be aware the Food and Drug Administration (FDA) does not have regulatory authority over cell phone towers and has not done an assessment on the safety of radiofrequency energy being emitted from antennas located on cell phone towers.*” ([Link to FDA Scarato email exchange](#))

On March 29, 2022 Laurie Lenkel FDA Ombudsman wrote that the “FDA is responsible for protecting the public health from hazardous or unnecessary radiation from radiation emitting electronic products” and “... the 5G tower you inquired about is under the authority of the FCC, not the FDA.” ([Link to FDA’s Lenkel email](#))

A June 20, 2016 email by FDA’s David Kassiday also confirms that the FDA does not address the environmental, ambient exposures from cell phone towers. Kassiday stated, “We don’t have jurisdiction over cellphone towers since those are environmental emitters.”

From: Kassiday, Daniel F. H.
Sent: Monday, June 20, 2016 2:36 PM
To: Nambiar, Madhusoodana; Loloei Marsal, Ana; Pastel, Mary; O'Hara, Michael D; McFarland, Scott
Cc: Pirt, Nancy
Subject: RE: FDA Citizens Petition on Cell Phones, Docket # FDA-2013-P-1374

(b)(5) Deliberative Process . We have already considered the NTP study partial result draft which was released. We don't have jurisdiction over cell phone towers since those are environmental emitters.

Daniel Kassiday

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This communication is consistent with 21 CFR 10.85(k) and constitutes an informal communication that represents my best judgment at this time but does not constitute an advisory opinion, does not necessarily represent the formal position of FDA, and does not bind or otherwise obligate or commit the agency to the view expressed.

For general information about electronic products, please visit the FDA website <http://www.fda.gov/Radiation-EmittingProducts/default.htm>. For Accession number status, please call (301) 796-6627. For assistance with eSubmitter please write to: esubmitter@fda.hhs.gov. Excellent customer service is important to us. Please take a moment to provide feedback regarding the customer service you have received. <https://www.research.net/s/cdrhcustomerservice?O=500&D=560&B=564&E=&S=E>

While the Detroit Public School Community District might assume the FDA is always monitoring the science on cell tower radiation, this is inaccurate. For example, the [2021 FDA's Annual report](#) was released on January 31, 2022 and there is no mention of the issue of cell phones or cell towers or wireless electromagnetic radiation. The FDA has not shown any evidence of monitoring research with new agency reports, meetings or budget on the issue.

A Pittsburgh Law Review [article](#) on the FDA and its role in ensuring public safety in regards to wireless radiation entitled, [The FCC Keeps Letting Me Be: Why Radiofrequency Radiation Standards Have Failed to Keep Up With Technology](#) concludes, "The FCC and FDA have failed in their obligation to prescribe safe RFR guidelines produced from wireless communication devices to protect the public health and safety."

The DPCS email also stated, "We are consistently reviewing the work of the Federal Communication Commission (FCC) as it relates to these towers and any concerns related to health and safety and retrieving and reviewing information from medical experts."

However, the FCC is doing zero work regarding cell tower radiation health effects as it is not an agency with scientific, medical or biological expertise. In fact the FCC was found to have ignored scientific studies presented to them on impacts of long term exposure.

On August 13, 2021, the United States Court of Appeals for the District of Columbia Circuit [ruled in our case](#) against the FCC that the decision by the Federal Communications Commission (FCC) not to update its 1996 safety limits for human exposure to wireless radiation (which includes cell tower emissions) was "arbitrary and capricious." One of the most important aspects of the court decision was that the court found the FCC did not adequately explain why it ignored scientific evidence on impacts from long term

wireless radiation exposure, especially in regards to children, who the American Academy of Pediatrics states are more vulnerable to wireless radiation.

The court ordered the FCC to examine the record evidence regarding long term exposure to children. So far, the FCC has not responded. Thus, this landmark [ruling](#) highlights how no federal health agency has reviewed the full body of current research to ensure the current human exposure limits of the FCC are adequately protective.

Extensive [published scientific evidence](#) indicates that radiofrequency radiation *at levels far below FCC limits* can cause cancer, increased oxidative stress, genetic damage, structural and functional changes of the reproductive system, memory deficits, behavioral problems, and neurological impacts. We consider radiofrequency radiation (RFR) to be a human carcinogen based on the [current body](#) of evidence.

European Parliament requested a research report "[Health Impact of 5G](#)" which was released in July 2021 and concluded that commonly used RFR frequencies (450 to 6000 MHz) are probably carcinogenic for humans and clearly affect male fertility with possible adverse effects on the development of embryos, fetuses and newborns.

Please see our latest publication entitled "[Wireless technologies, non-ionizing electromagnetic fields and children: Identifying and reducing health risks](#)" published in *Current Problems in Pediatric and Adolescent Health Care* regarding the need to mitigate risk to children.

Please be aware:

The [EPA School Siting Guidelines](#) lists exposure to electromagnetic fields and the fall distance as "potential hazards" from cell towers. The EPA guidelines [recommend schools "identify and evaluate cell towers within ~200 feet of prospective school locations."](#)

The [EPA has stated](#) that U.S. FCC RF radiation limits do not address possible risk from long-term, nonthermal exposures.

The New Hampshire State Commission on 5G Health and Environment investigated the issue of RF radiation for a year and issued [a final report](#) recommending reducing children's RF exposure and that the state enact a 1640 feet cell tower setback for homes and schools.

The exposure limits of the US Federal Communications Commission are totally outdated and do not protect the health of the public, especially not the health of children.

The [Ecolog Institute Report](#) (2000) commissioned by T-Mobile recommended an exposure limit 1000 times lower than the FCC's current power density limit.

The Los Angeles School District has banned cell towers on their District's school grounds and also [set an RF limit at 10,000 less than FCC limits](#) stating that, "It is believed that a more conservative level is necessary to protect children, who represent a potentially vulnerable and sensitive population."

Children are more vulnerable to RF radiation, just as they are to other environmental exposures. Even very low exposures to children can have [serious impacts](#) later in life because their nervous and immune systems are rapidly developing. Children absorb higher levels of RF radiation deeper into their brains and bodies because they have thinner skulls, a higher water content in their tissues. Children will have a longer lifetime of higher exposures, compared to adults today.

The [American Academy of Pediatrics states](#):

“In recent years, concern has increased about exposure to radio frequency (RF) electromagnetic radiation emitted from cell phones and phone station antennas. An Egyptian study confirmed concerns that living nearby mobile phone base stations increased the risk for developing:

- Headaches
- Memory problems
- Dizziness
- Depression
- Sleep problems

Short-term exposure to these fields in experimental studies have not always shown negative effects, but this does not rule out cumulative damage from these fields, so larger studies over longer periods are needed to help understand who is at risk. In large studies, an association has been observed between symptoms and exposure to these fields in the everyday environment.”

At this time we have not identified a safe level of exposure. Although radiation levels decrease as you increase your distance from a particular antenna/tower, the reality is that adding a tower or base station to a community will definitely *increase* the radiation exposure in that area near the antennas and within the surrounding coverage area.

We recommend policies to reduce human exposure to RFR, especially for children. Schools are where children spend the majority of their daytime hours. Therefore we strongly recommend against installing cell towers near schools, daycares, parks, homes, or hospitals.

Recent research on people living near cell antennas has found increases in molecular markers in the blood that predict cancer. This study evaluated effects in the human blood of individuals living near mobile phone base stations (for study purposes, they chose a distance of 80 meters) compared with healthy controls living more than 300 meters from a base station. The study measured higher RFR levels in the homes of people living in homes within 80 meters from the cell antennas (documenting the impact of increased RFR radiation from the antenna installations) and found statistically significant differences in their blood. The group living closer to the antennas had statistically significant higher frequency of micronuclei and a rise in lipid peroxidation in their blood; these changes are considered biomarkers predictive of cancer ([Zothansiyama et al. 2017](#)).

A review paper entitled “[Limiting liability with positioning to minimize negative health effects of cellular phone towers](#)” reviewed the “large and growing body of evidence that human exposure to RFR from cellular phone base stations causes negative health effects.” The authors recommend restricting antennas near home and within 500 meters of schools and hospitals to protect companies from future liability ([Pearce 2020](#)).

Please note the following scientific publications regarding cell towers and cell phone radiation:

- European Parliament requested a research report “[Health Impact of 5G](#)” which was released in July 2021 and concluded that commonly used RFR frequencies (450 to 6000 MHz) are probably carcinogenic for humans and clearly affect male fertility with possible adverse effects on the development of embryos, fetuses and newborns.
- A review entitled “[Evidence for a health risk by RF on humans living around mobile phone base stations: From radiofrequency sickness to cancer](#)” reviewed the existing scientific literature and found radiofrequency sickness, cancer and changes in biochemical parameters.

- The US National Toxicology Program \$25 million animal study on long-term exposure to radiofrequency radiation found [DNA Damage](#), [heart damage](#), increased [brain tumors](#), and [increased heart tumors](#) deemed “clear evidence of cancer.” Importantly, this study was launched almost two decades ago by the FDA because the US government had not performed research on the long-term effects of RFR exposure and the FDA wanted data on long-term safety. In 1996, the EPA was defunded from developing proper safety standards, and since then there has been no systematic review of the science by any US agency.
- Researchers with the Ramazzini Institute in Italy published [findings](#) that lab animals exposed to levels of RFR (below FCC limits) set to mimic cell tower exposures developed the same types of cancerous cancers as the [US National Toxicology Program](#) found in their large-scale animal study.
- In 2011, radiofrequency radiation was [classified](#) as a Class 2B possible carcinogen by the World Health Organization’s International Agency for Research on Cancer. This classification applies to RF regardless of the source. Between 2011 and today, the published peer-reviewed scientific evidence has significantly increased. Now, many scientists are of the opinion that the weight of current peer-reviewed evidence supports the conclusion that radiofrequency radiation should be regarded as a human carcinogen ([Hardell and Carlberg 2017](#), [Peleg et al. 2018](#), [Miller et al 2018](#)).
- An Australian [study](#) looked at RFR levels to which kindergarten children were exposed, depending on how close their school was to base stations/cell towers. Researchers equipped the children with RFR measuring devices. Researchers found that kindergartens located nearby base stations/cell towers (closer than 300 meters or approximately 330 yards) had total exposure to radiofrequency radiation (RFR or RF-EMF) more than 3 times higher than children at schools where base stations were further away than 300 meters.
- A 2018 [study](#) measured radiofrequency radiation exposures in the environment including emissions from cell phone towers, TV and FM radio broadcast antennas, cell phone handsets, and Wi-Fi—in several countries including the United States. The researchers concluded that cell phone tower (base station) radiation emissions are the dominant contributor to RFR exposure in most outdoor areas.
- A 2015 review found that in 93 out of 100 studies, RFR exposure caused oxidative stress ([Yakymenko 2015](#)). A 2021 review again confirmed non ionizing radiation has oxidative effects ([Schuermann 2021](#)). Many well-known causes of cancer in humans (such as asbestos and arsenic) are understood to induce oxidative stress.
- Studies also show that when combined with lead or a known carcinogen, RFR has magnified the carcinogen’s effects. For example, RFR at levels far below FCC limits more than doubled the numbers of liver and lung tumors in carcinogen-exposed mice ([Lerchl 2015](#)).
- The International Association of Firefighters has officially opposed cell towers on their stations since 2004 after a study [found](#) neurological damage in firefighters with antennas on their fire station. In 2017, when 5G “small cells” were coming to California via a 5G streamlining bill (SB 649), firefighter organizations came out in strong opposition to the bill and requested that towers not be installed on firehouses. They were successful and SB649 was [amended](#) to [exempt](#) their stations from the deployment due to their health concerns.
- A 2019 [study](#) of students in schools near cell towers found their higher RF exposure was associated with impacts on motor skills, memory, and attention ([Meo 2019](#)). Examples of other

effects linked to cell towers in research studies include [neuropsychiatric problems](#), [elevated diabetes](#), [headaches](#), [sleep problems](#), and [genetic damage](#). Such research continues to accumulate after the 2010 landmark [review study](#) on 56 studies that reported biological effects found at very low intensities of wireless radiation, including impacts on reproduction, permeability of the blood-brain barrier, behavior, cellular changes, and metabolic changes, and increases in cancer risk ([Lai and Levitt 2010](#)).

- The [International EMF Scientist Appeal](#) was submitted to the United Nations urging immediate protective policy action in light of the scientific evidence that has found adverse biological effects from electromagnetic radiation, including radiofrequency radiation, and, as of January 2019, this Appeal is signed by 247 scientists from 42 nations; these are scientists who have published peer-reviewed articles about electromagnetic fields. They state, “numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being.”

Many communities restrict cell towers near schools and homes:

- Shelburne, Massachusetts: 3,000 feet for schools and 1,500 feet for homes.
- Copake, New York: 1,500 feet from homes, schools, churches and public buildings.
- Sallisaw, Oklahoma: 1,500 feet from homes.
- Stockbridge, Massachusetts: 1,000 feet for schools, playgrounds and athletic fields. 600 feet for residential.
- Walnut City, California: 1,500 feet setbacks for schools, parks and residential zones.
- Bar Harbor, Maine: 1500 feet setback for schools.
- Bedford, New Hampshire: 750 feet from nearest residentially-zoned property.

Please note that in several countries, governments have set policies to protect children, pregnant women, and medically fragile persons by classifying areas with homes, hospitals, and schools as “sensitive areas.” Some examples include:

- India lowered their RF limits to 1/10th of US FCC ICNIRP limits. *The Brihanmumbai Municipal Corporation, Zilla Parishad, Rajasthan, and Mumbai have banned cell antenna/tower installations on schools.*
- Greece has banned the installation of mobile phone base stations at the premises of schools, kindergartens, hospitals, or eldercare facilities.
- Chile’s “Antenna Law” prohibits cell antennas/towers in “sensitive areas” (educational institutions, nurseries, kindergartens, hospitals, clinics, nursing homes).
- Several countries have [lower allowable RFR limits](#) for “sensitive” areas which is generally defined as areas where children play and school.

The Risk of Inaction is High

Cell towers on school property present serious liability issues.

- [Insurers](#) rank 5G and electromagnetic radiation as a “high” risk, comparing the issue to lead and asbestos. A 2019 Report by [Swiss Re Institute](#), a world leading provider of insurance, classifies 5G mobile networks as a “high”, “off-the-leash” risk stating, “Existing concerns regarding potential negative health effects from electromagnetic fields (EMF) are only likely to increase. An uptick in liability claims could be a potential long-term consequence” and “[a]s the biological

effects of EMF in general and 5G in particular are still being debated, potential claims for health impairments may come with a long latency.”

- Due to their understanding of the magnitude of this future financial risk most insurance plans have “electromagnetic field exclusions” applied as the market standard.⁴⁰ Portland Oregon Public School Insurance (Pg 30) states as an example, ”Exclusions: This insurance does not apply to: Bodily injury, personal injury, advertising injury, or property damage arising directly or indirectly out of, resulting from, caused or contributed to by electromagnetic radiation, provided that such loss, cost or expense results from or is contributed to by the hazardous properties of electromagnetic radiation.”
- US Mobile operators have been unable to get insurance to cover liabilities related to damages from long term exposure to radiofrequency emissions for over a decade.
- Wireless and non ionizing electromagnetic radiation are defined as a type of “pollution” by wireless companies themselves. According to pg. 10 of the Verizon Total Mobile Protection Plan, “Pollution” is defined as “The discharge, dispersal, seepage, migration or escape of pollutants. Pollutants means any solid, liquid, gaseous, or thermal irritant or contaminant including smoke, vapor, soot, fumes, acid, alkalis, chemicals, artificially produced electric fields, magnetic field, electromagnetic field, sound waves, microwaves, and all artificially produced ionizing or nonionizing radiation and/or waste.” We found similar definitions for pollution in the product protection plans for AT&T, Sprint, Verizon, T-Mobile and Asuria.
- Wireless companies warn their shareholders of this potential future risk related to radiofrequency radiation exposure but they do not warn the users of these products, nor do they warn the people exposed to emissions from their products and infrastructure. These corporate investor warnings by companies such as AT&T, Verizon, Vodaphone and Crown Castle are contained in their Annual Reports filed on Form 10-K (or Form 20-F or 40-F for foreign companies) with the Securities and Exchange Commission (SEC) and they clearly inform shareholders that companies may incur significant financial losses related to electromagnetic fields. Safety is not assured.

As an example, Crown Castle states in their 2020 Annual Report, “If radio frequency emissions from wireless handsets or equipment on our communications infrastructure are demonstrated to cause negative health effects, potential future claims could adversely affect our operations, costs or revenues. The potential connection between radio frequency emissions and certain negative health effects, including some forms of cancer, has been the subject of substantial study by the scientific community in recent years. We cannot guarantee that claims relating to radio frequency emissions will not arise in the future or that the results of such studies will not be adverse to us...If a connection between radio frequency emissions and possible negative health effects were established, our operations, costs, or revenues may be materially and adversely affected. We currently do not maintain any significant insurance with respect to these matters.”

EHT’s position is that children require special protections from radiofrequency radiation and their exposures should be reduced to as low as possible. We strongly recommend against cell tower/antenna placements at or near schools and homes as this would increase daily RFR exposure.

Please feel free to contact us with more questions.

Sincerely,

Theodora Scarato MSW Executive Director
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Theodora.scarato@ehtrust.org

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