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- How the FCC Shields Cellphone Companies From Safety Concerns

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The wireless industry is rolling out thousands of new transmitters amid a growing body of research that calls cellphone safety into question. Federal regulators say there's nothing to worry about — even as they rely on standards established in 1996.

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The health complaints started rolling in within weeks of the activation of a new cellphone tower in August 2020 in Pittsfield, an old factory town in Massachusetts' Berkshire Mountains. Seventeen residents reported headaches, dizziness, insomnia or confusion. A few children had to sleep with "vomit buckets" by their beds.

Like many people, Bobbie Orsi had never paid close attention to questions about the health effects of cellphone technology. She mostly viewed it as an issue that had long ago been put to rest. But after becoming the chair of Pittsfield's Board of Health as the complaints emerged, Orsi, a 66-year-old registered nurse who had spent much of her career in public health, decided to educate herself. She combed through a stack of research studies. She watched webinars. She grilled a dozen scientists and doctors.

Over several months, Orsi went from curious, to concerned, to convinced, first, that radio-frequency emissions from Verizon's 115-foot 4G tower were to blame for the problems in Pittsfield, and second, that growing evidence of harm from cellphones — everything from effects on fertility and fetal development to associations with cancer — has been downplayed in the United States.

Orsi and the Pittsfield board decided to try to do something about Verizon's tower. They quickly discovered that they would get no help from federal regulators. The Federal Communications Commission, which has responsibility for protecting Americans from potential radiation hazards generated by wireless transmitters and cellphones, has repeatedly sided with the telecom industry in denying the possibility of virtually any human harm.

Worse, from Orsi's perspective, federal law and FCC rules are so aligned with the industry that state and local governments are barred from taking action to block cell towers to protect the health of their citizens, even as companies are explicitly empowered to sue any government that tries to take such an action. It turned out that Verizon, in such matters, has more legal rights than the people of Pittsfield.

Still, the lawyers for Orsi and her colleagues thought they saw a long-shot legal opening: They would argue that the FCC's exclusive oversight role applied only to approving cell tower sites, not to health problems triggered after one was built and its transmitters switched on. In April 2022, the Pittsfield Health Board issued an emergency cease-and-desist order directing Verizon to shut down the tower as a "public nuisance" and "cause of sickness" that "renders dwellings unfit for human habitation." (Several families had abandoned their homes.) The order was the first of its kind in the country. It was, Orsi said, "a gutsy move — maybe naively gutsy."

The Board of Health in Pittsfield, Massachusetts, tried to fight Verizon over a 4G tower. Credit: Patrick Dodson for ProPublica

Almost as quickly as the battle began, it ended. On May 10, Verizon sued the city in federal court. The company contended that the Pittsfield residents' medical complaints were bogus. And, in any case, Verizon argued, the cease-and-desist order was barred because federal law gave the FCC the sole power to regulate wireless-radiation risks. Fearing a hopeless and costly David-and-Goliath battle, Pittsfield's City Council refused to fund the fight. A month later, the Board of Health withdrew its cease-and-desist order.

But it was a signal of a growing fear — other cities have fought cell sites only to be forced to back down — and evidence of a striking shoulder-to-shoulder partnership between a federal agency and the industry it is supposed to regulate. The build-out of a new generation of wireless networks, known as 5G, is amping up the stakes of this conflict for localities across America. It will require an estimated 800,000 new base stations, including both towers and densely spaced "small cell" transmitters mounted on rooftops and street poles. That means nearly tripling the current number of transmitters, and many of them will be placed close to houses and apartments.

The FCC has held firm to its position that there's no reason for concern. In a statement for this article, a spokesperson said the agency "takes safety issues very seriously" but declined to make officials available for on-the-record interviews.

The FCC is an improbable organization to serve the role of protecting humans. It specializes in technical issues that make the communications system function, not in health and safety. “At the FCC, they feel like this is really not their problem,” said Edwin Mantiplay, who dealt with cellphone-radiation issues before retiring from the agency four years ago. “It’s not their job to do this kind of thing. They might have a token biologist or two, but that’s not their job.” The result, Mantiplay said, was that in situations where the science isn’t black and white — and it isn’t when it comes to cellphones — the agency tended to listen to the telecom industry, which vehemently insists that cellphones are safe. “They don’t really want to deal with uncertainty,” Mantiplay said of the FCC.

In the view of Mantiplay and a rising number of scientists, there’s more than enough evidence about cellphone risks to be concerned — and some of the strongest evidence comes from the federal government itself. In 2018, a massive, nearly-two-decade study by the National Toxicology Program, part of the National Institutes of Health, found “clear evidence” that cellphone radiation caused cancer in lab animals. “We’re really in the middle of a paradigm shift,” said Linda Birnbaum, who was director of the NTP until 2019. It’s no longer right to assume cellphones are safe, she said. “Protective policy is needed today. We really don’t need more science to know that we should be reducing exposures.”

The FCC rejected the need for any such action when it reviewed its standards on cellphone radiation in 2019. The agency decided it would continue to rely on exposure limits it established in 1996, when Motorola’s StarTAC flip phone was considered cutting edge.

The Motorola StarTAC flip phone was considered cutting edge in 1996 when the Federal Communications Commission established exposure limits for cellphones. The agency has not updated those limits since. Credit: SSPL/Getty Images

The way the FCC went about reexamining its standards so dismayed a federal appeals court that, in 2021, it excoriated the agency for what it called a “cursory analysis.” The court accused it of “brushing off” evidence of potential harm and failing to explain its reasoning. The agency’s “silence,” the court said, left unclear whether the government even “considered any of the evidence in the record.” The appeals court ordered the agency to revisit the adequacy of its safeguards.

All this has left Orsi frustrated. Petite and intense, she has been through these sorts of fights before. Years ago, with the eventual support of the Environmental Protection Agency, she helped push

General Electric to clean up the toxic chemicals it had dumped in Pittsfield.

Now she feels powerless. “The Board of Health has a mandate to protect the citizens of Pittsfield,” she said. “But the bottom line is the FCC has made it impossible for us to do anything. If a company can come in and do something to make people sick, and the Board of Health has no authority to act, that’s ludicrous.”

Bobbie Orsi, the chair of Pittsfield’s Board of Health, combed through research studies and grilled scientists to educate herself on the risks of cellphone technology. Credit: Patrick Dodson for ProPublica

To see how completely the U.S. telecom industry has prevailed in the rhetorical war over cellphone safety so far, consider this example. In February 2019, near the end of a hearing largely devoted to extolling the wonders of 5G technology, Sen. Richard Blumenthal, D-Conn., asked representatives of two wireless industry trade groups what sort of research the industry was funding on the biological effects of 5G, which remains largely untested. “There are no industry-backed studies, to my knowledge, right now,” replied Brad Gillen of the CTIA (originally called the Cellular Telecommunications Industry Association). “I’m not aware of any,” replied Steve Berry of the Competitive Carriers Association.

Wireless companies maintain that cellphones and base stations operating within the FCC’s exposure limits pose no proven risk. A CTIA spokesperson wrote in a statement, “The consensus of the international scientific community is that radiofrequency energy from wireless devices and networks, including 5G, has not been shown to cause health problems.” Included in that list was the National Cancer Institute. The spokesperson also said the industry is in favor of additional science. (Verizon itself declined to comment on the record for this article.)

In a September 2021 meeting with Pittsfield’s Board of Health, for example, Verizon’s chief expert was a University of Pittsburgh theoretical physics professor named Eric Swanson. He testified that wireless radiation is far too weak to cause cancer or any of the problems the Pittsfield residents were reporting. He suggested they have psychological problems.

Fears of radio-frequency radiation, Swanson declared in the videotaped meeting, are based entirely on “fringe opinion,” backed only by cherry-picked evidence. Swanson said he’d spotted one such study on “an Alex Jones website” and voiced exasperation: “This is the kind of stuff I have to deal with.”

Concerns about wireless radiation, he said, are at odds with the overwhelming scientific consensus. “All international bodies,” he said, “declare cellphones to be safe.”

The FCC has been similarly scornful. In a June 2020 Washington Post op-ed, Thomas Johnson, general counsel for the agency during the administration of President Donald Trump, wrote: “Conjectures about 5G’s effect on human health are long on panic and short on science.” Johnson has since decamped to a law firm that represents telecom companies. (Johnson declined requests for comment.)

Signs in Pittsfield denounce the Verizon cell tower. Credit: Patrick Dodson for ProPublica

“It’s a slog at the moment to convince people this isn’t just crazy stuff,” said Louis Slesin, an MIT-trained environmental policy Ph.D. and the editor of Microwave News, an industry newsletter that has chronicled the wireless-radiation debate for four decades. “This is part of the organized campaign to devalue the science, with the government as a co-conspirator. The other really important factor is nobody wants to hear this because everybody loves the technology. If you shut down people’s phones, the country would come to a stop.”

But a growing body of international research asserts that there is reason to worry about harms — many of them unrelated to cancer — from wireless radiation. Henry Lai, an emeritus professor of bioengineering at the University of Washington, has compiled a database of 1,123 peer-reviewed studies published since 1990 investigating biological effects from wireless-radiation exposure. Some 77% have found “significant” effects, according to Lai. By contrast, an earlier review by Lai found that 72% of industry-sponsored studies reported no biological effects.

One branch of research has studied radiation impacts on test animals, mostly rats and mice, but also guinea pigs, rabbits and cows. Another has examined epidemiological patterns, looking for health effects on human groups, such as heavy long-term cellphone users or people living near cellphone towers. Studies have found impacts on fertility, fetal development, DNA, memory function and the nervous system, as well as an association with an array of cancers. Several investigations reported a significantly increased risk of brain tumors, called gliomas, among the heaviest cellphone users. And the International Agency for Research on Cancer, an arm of the World Health Organization, in 2011 classified wireless radiation as “possibly carcinogenic to humans.”

Individual studies underline the value of simple precautions, which include using a headset or speaker and keeping the phone away from direct contact with your body. In 2009, Ashok Agarwal, director of research at the Cleveland Clinic's American Center for Reproductive Medicine, found that exposing human semen to cellphone radiation for an hour caused a "significant decrease" in sperm motility and viability, impairing male fertility. He advises patients to avoid carrying phones in their pants pockets.

Epidemiological studies show a rise in behavioral disorders among children whose mothers were heavy cellphone users while pregnant, while lab research found hyperactivity and reduced memory in mice exposed in the womb to cellphone radiation. "The evidence is really, really strong now that there is a causal relationship between cellphone radiation exposure and behavior issues in children," said Dr. Hugh Taylor, a professor of obstetrics and gynecology at the Yale School of Medicine and past president of the American Society for Reproductive Medicine. The period of fetal brain development is a "very vulnerable time," he said.

The American Academy of Pediatrics has written that the FCC's safeguards "do not account for the unique vulnerability and use patterns specific to pregnant women and children." It urged the agency to adopt measures "protective of children," warning that their thinner skulls leave them "disproportionately impacted" by cellphone radiation, and called for better consumer disclosure about exposure risks.

Both the FCC and Food and Drug Administration websites dismiss the existence of any special health risk to children. And the agencies don't counsel people to limit their exposure. Instead they list safety steps, while insisting they're really not necessary. The FCC's "Wireless Devices and Health Concerns" page, for example, notes that "some parties" recommend safety measures, "even though no scientific evidence currently establishes a definitive link between wireless device use and cancer or other illnesses." It then states, in bold: "The FCC does not endorse the need for these practices." Only then does it list "some simple steps that you can take to reduce your exposure" to radio-frequency energy from cellphones.

Efforts in the U.S. to promote awareness of wireless-radiation risks have sparked fierce industry resistance. In 2014, the CDC added this modest language to its website: "Along with many organizations worldwide, we recommend caution in cellphone use." An influential industry consultant emailed the CDC within days, as a public-records request later revealed, complaining that "changes are truly needed" in the CDC's language. The agency quickly softened its warning, which now says: "Some organizations recommend caution in cellphone use."

The industry's main trade group, CTIA, has beaten back local consumer-disclosure measures. For example, in 2015, CTIA sued Berkeley, California, after its City Council passed an ordinance requiring retailers to post a safety notice warning customers that carrying a cellphone tucked in a pocket or bra might expose them to excessive radiation. (This was based on FCC guidelines, typically buried in small-print information included with new phones, that phones shouldn't be kept in direct contact with the head or body.) A five-year legal battle, including a trip to the U.S. Supreme Court, ensued. It ended after the FCC weighed in, saying the ordinance interfered with its exclusive authority by "over-warning" consumers and frightening them "into believing that RF emissions from FCC-certified cellphones are unsafe." With that, the judge ruled against the city.

"The industry doesn't want you to pay any attention to that stuff because that just creates anxiety among users," said Joel Moskowitz, director of the Center for Family and Community Health at the University of California-Berkeley, who advised the city in its fight. "They want you to think these devices are perfectly safe."

By contrast, more than 20 foreign governments have adopted protective measures or recommended precautions. France requires new phones to be sold with headsets and written guidance on limiting radiation exposures; it also bans phones marketed to small children and ads aimed at anyone younger than 14. Greece and Switzerland routinely monitor radio-frequency radiation levels throughout the country. Britain, Canada, Finland, Germany, Italy, India and South Korea urge citizens to limit both their own exposure and cellphone use by children. The European Environment Agency does too, noting: "There is sufficient evidence of risk to advise people, especially children, not to place the handset against their heads."

When the FCC's rules on radio-frequency emissions from phones and transmitters were adopted 26 years ago, just 1 in 6 Americans owned cellphones, which they typically used for short periods. Today, 97% of adults own a cellphone, and they use the device for an average of five hours a day. More than half of children under 12 own a smartphone.

Then and now, the FCC's rules targeted just one health hazard: the possibility that wireless radiation can cause immediate "thermal" damage, by overheating skin the way a microwave oven heats food. Most experts agree that risk is nonexistent under any but the most unusual circumstances.

Meanwhile, the FCC doesn't even consider "biological" impacts: the possibility that wireless exposure, even at levels well below the FCC limits, can cause an array of human health problems, as well as harm to animals and the environment. The FCC's approach matches the industry's long-standing position: that wireless radiation is simply too weak to cause any nonheating damage.

Of course, the wireless industry has every incentive to take this position. Going back to the 1990s, the industry has recognized the financial peril posed by health concerns over radiation, and it has pressed the public and government to reject them altogether.

In 1994, for example, Motorola swung into action when it learned of troubling research by Lai and a University of Washington colleague, Narendra Singh, who found that two hours of exposure to modest levels of wireless radiation damaged DNA in the brains of lab rats. Such changes can lead to cancerous tumors.

Motorola's then-PR chief described a strategy to discredit the findings in a pair of memos that were later leaked to Microwave News. Motorola's approach would serve as a template for the industry's response to troublesome research over the three decades that followed. The researchers' methodology would be challenged for raising "too many uncertainties" to justify any conclusions. The scientists' credibility would be questioned and their findings dismissed as irrelevant. Finally, friendly academics, "willing and able to reassure the public on these matters," would be recruited to rebut the findings. (At the time, Motorola defended its conduct as the "essence of sound science and corporate responsibility" and affirmed that there was "a sound scientific basis for public confidence in the safety of cellular telephones.")

Doubters in the government would be neutralized too. As the FCC moved toward adopting wireless-radiation limits in 1996, EPA officials, whose experts had conducted the most extensive government research on wireless-radiation risk, affirmed their concern about possible biological harm in a presentation to the FCC. They urged the FCC to follow a two-stage strategy: to meet a looming congressional deadline by first setting interim limits covering known thermal effects; then to commission a group of experts to study biological risks and develop permanent exposure guidelines.

But the FCC never pursued "Phase 2." Instead, just months later, Congress completed a multiyear defunding of the EPA's wireless-radiation group, sidelining the agency from researching the issue. This left most independent study of the issue to scientists in other countries. At the EPA, a lone radio-



frequency radiation expert named Norbert Hankin remained, periodically ranking the wireless industry by publicly rebutting “the generalization by many that the [FCC] guidelines protect human beings from harm by any or all mechanisms.”

Going forward, the FCC, which has no in-house health or medical expertise of its own, would increasingly rely on the FDA and industry-influenced technical organizations. (The FDA itself has collaborated with the CTIA, the wireless industry trade group, to study cellphone safety. That research found “no association” between exposure to “cell phones and adverse health effects.”)

Still, there was enough concern among government scientists from multiple agencies that, in 1999, the FDA asked the NTP to “assess the risk to human health.” The NTP conducts detailed lab studies, typically on rodents, to evaluate environmental hazards. Its findings, widely regarded as the gold standard for toxicology work, routinely prompt federal public-health actions.

The FDA requested that the NTP conduct its own animal experiments, which were “crucial” to assess cancer risk because of the long delay between human exposure to a carcinogen and a tumor diagnosis. As an FDA memo put it, “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.”

The NTP study was the biggest the agency had ever conducted and lasted over a decade. It used an unusually large number of rats and mice — some 3,000 — and involved both setting up a lab in Chicago and designing and constructing special radiation-exposure chambers for the rodents in Switzerland. The final report was released in November 2018.

The results were dramatic. The study found “clear evidence” of rare cancerous heart tumors, called schwannomas, in male rats; “some evidence” of tumors in their brains and adrenal glands; and signs of DNA damage. The percentage that developed tumors was small, but, as the study’s authors noted earlier, “Given the extremely large number of people who use wireless communication devices, even a very small increase in the incidence of disease resulting from exposure” could have “broad implications for public health.”

The federal government’s scientists had spoken. But the parts of the government charged with following the science and protecting people responded (in the case of the FCC) by publicly ignoring

the results or (in the case of the FDA) pooh-poohing them. The study changed nothing, said Dr. Jeffrey Shuren, director of the FDA's Center for Devices and Radiological Health, and the chief official advising the FCC on wireless issues, in a statement at the time of the study's release. Shuren disputed several key findings and asserted that the study "was not designed to test the safety of cellphone use in humans," even though his own agency had commissioned it specifically for that reason. He added: "We believe the existing safety limits for cellphones remain acceptable for protecting the public health." (An FDA spokesperson said Shuren declined to comment.)

The NTP findings, combined with similar results that year from the Ramazzini research institute in Italy and other studies, demanded a strong response, according to three long-time former government experts who spoke to ProPublica. "It should have been the game-changer," added Moskowitz, the Berkeley public-health researcher.

The former government officials believe the NTP findings should have led to a detailed statistical risk assessment by federal health agencies, spelling out the possible incidence of cancer in the general population; development of stricter FCC limits to address biological risks; prominent user warnings detailing simple steps people should take to minimize their exposure; and dramatically increased research funding.

None of that happened. "Their conclusion was, 'Oh, there was nothing going on,'" said Birnbaum, the NTP's then-director and a toxicologist. "Many of us found that very hard to believe."

Today Birnbaum, who retired in 2019 after 40 years with government health agencies, is tempered in her assessment of the evidence. "Do I see a smoking gun? Not per se. But do I see smoke? Absolutely. There's enough data now to say that things can happen." Birnbaum said the NTP results should have triggered a consumer advisory akin to "the black-box warning on a drug, to say this has been associated to possibly cause cancer."

Even as the NTP study was happening, the FCC in 2013 had been prodded by a Government Accountability Office report to review its radio-frequency exposure limit, unchanged since 1996. "We recognize that a great deal of scientific research has been completed in recent years and new research is currently underway, warranting a comprehensive examination," the FCC wrote, in opening its inquiry.

Over the six years that followed, 1,200 comments poured into the FCC's docket, including scores of studies (and a briefing on the NTP findings); appeals for stronger protections signed by hundreds of international scientists; and 170 personal accounts of "electro-sensitivity" radiation sickness, similar to the complaints in Pittsfield, resulting from neighborhood cell towers. An Interior Department letter voiced concern about the impact of radiation from towers on migrating birds, noting that the FCC's limits "continue to be based on thermal heating, a criterion now nearly 30 years out of date and inapplicable today."

The FCC was overwhelmed by the flood of comments, according to Mantiply, the agency official most involved in radio-frequency issues during this period. "We didn't have the resources to even read all the comments," he told ProPublica.

Edwin Mantiply, a former FCC official, thought the agency was ignoring the issue of cellphone risk. Credit: Greg Kahn, special to ProPublica

Mantiply thought higher-ups were ignoring the issue. "There was really nothing being done on it," he said. "The inquiry was just on a back burner, and the back burner was turned off." So Mantiply, a soft-spoken physical scientist, decided to take action. In 2017, as the FCC's review of its wireless standards entered its fourth year, he said, he and three colleagues proposed hiring an outside consulting firm to conduct an environmental assessment, a detailed formal examination, of the submissions on the radiation safety limits. But their boss, Julius Knapp, the head of the FCC's Office of Engineering and Technology, summarily rejected the proposal, according to Mantiply. "He said, 'No, we're not going to do that.' He let us know in no uncertain terms. He just rejected it in a single meeting."

(Knapp, who is now retired, declined to comment on the record. FCC officials, through a spokesperson, declined requests to discuss the matter. Former FCC engineer Walter Johnston, one of the colleagues Mantiply identified as backing his proposal, said he didn't remember it ever being presented as a "formal recommendation.")

Mantiply's proposal came at a time when the Trump White House and FCC commissioners were aggressively promoting 5G. FCC leadership was "not really thrilled with us pushing these inquiries," Mantiply said. "They just felt like it'd get a lot of attention, that it would be in The Washington Post."

On his final day at the FCC in August 2018, as he was retiring after 42 years in government, Mantiply raised the issue with FCC Commissioner Jessica Rosenworcel during a brief courtesy visit. “Don’t dismiss all this stuff because you’re hearing from industry, and they’re dismissing it,” Mantiply told her. “There’s uncertainty, and we don’t know what’s going on. It’s a very, very difficult problem.” Rosenworcel, he said, listened politely.

Fifteen months later, the FCC voted unanimously to shut down its review after six years. There was no need to change anything, the commissioners concluded. After examining the record, the FCC declared in a written order, it had seen no evidence that the science underlying its standards was “outdated or insufficient to protect human safety.”

The U.S. Court of Appeals in Washington, D.C., disagreed. Responding to a pair of lawsuits filed by the Environmental Health Trust and other activist groups, the court ruled in August 2021 that the FCC had failed to meet “even the low threshold of reasoned analysis” in finding that its limits “adequately protect against the harmful effects of exposure to radiofrequency radiation unrelated to cancer.” (The FCC had responded sufficiently to fears that wireless radiation causes cancer, the judges wrote.)

It was a striking rebuke, given the judiciary’s practice of offering agency decisions a high degree of deference, especially on technical matters. The court wrote that it was taking “no position in the scientific debate” on wireless radiation’s effects, but it was scornful of the FCC’s heavy reliance on three “conclusory” statements from the FDA about safety. In oral argument, one judge also challenged the FCC’s claim that an interagency working group was closely monitoring concerns about wireless exposure on the FCC’s behalf; in fact, the group hadn’t met since 2018.

The FCC’s actions, the court wrote, waved off any concern about protections for children and ignored “substantive evidence of potential environmental harms.” And the FCC had said nothing about the potential impacts of the many technological changes, including 5G, that had taken place since 1996. “Ultimately,” the court wrote, “the Commission’s order remains bereft of any explanation as to why, in light of the studies in the record, its guidelines remain adequate.”

With that, the court sent the issue back to the FCC, for either a fresh review of its 26-year-old standard or better explanations to justify it. In the 15 months since, the FCC, now led by Rosenworcel, who was elevated by President Joe Biden, has taken no formal action.

In its statement to ProPublica, the FCC said it is exploring “next steps” with its “federal partners.” However, the FDA, the FCC’s chief partner on health concerns, said in its own statement that it is not currently working with the FCC on any response to the court ruling. There’s been no visible sign of any preliminary FCC steps, according to four lawyers and representatives of the environmental groups that brought the court challenge.

In the past few years, with the appearance of more neighborhood cell towers and transmitters, pressure has begun to rise on this issue beyond environmental groups, longtime activists and officials in liberal jurisdictions. In November 2020, a bipartisan state commission in New Hampshire charged with investigating 5G issued a detailed report concluding that wireless radiation “poses a significant threat to human health and the environment.” Among its recommendations: that all new cell towers be at least 1,640 feet (500 meters) from any residence, school or business. And in April, Mark Gordon, the Republican governor of Wyoming, wrote to Rosenworcel, urging the agency to reexamine its radiation limits based on “current scientific research” to make sure “the health and safety of our citizens is prioritized.”

These 20 Churches Supported Political Candidates. Experts Say They Violated Federal Law.

In Pittsfield, Orsi and her colleagues on the board have grown resigned to their inability to take action against Verizon. Reactions have varied around town. One group of affected neighbors is waging its own separate long-shot legal battle with the company. Others are coping with dark humor. Before Halloween, the local daily suggested dressing up as a cellphone tower to “strike fear in the heart of your neighbors.” Nobody in Pittsfield is holding out hope that the federal government will intervene.

“It’s very natural for the FCC to listen to the industry,” said Mantiply, the former agency staffer. “That’s their audience and who they deal with most of the time.” But, he added, “They’re answering to industry more than anything.”