

# Congress of the United States

Washington, DC 20515

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September 13, 2019

Chairman Ajit Pai  
Federal Communications Commission  
445 12<sup>th</sup> Street SW  
Washington, DC 20554

Dear Chairman Pai:

We are writing in regard to your August 8 proposal<sup>1</sup> to maintain the FCC's twenty-three-year-old radiofrequency (RF) radiation exposure limits, which have not been updated since 1996.

We want to be clear: the FCC has a serious responsibility to inform the American public about its research on the safety of RF radiation in wireless technologies. We are concerned that the FCC's continued appearance of equivocation on this issue has undermined the public's trust in the FCC and the federal government, and its continued lack of transparency could very well fuel allegations that the FCC is beholden to industry, rather than being concerned with protecting public health and safety.

As we've noted in previous correspondence, when the FCC's current guideless for RF safety were adopted in 1996, our society's relationship with and understanding of wireless technology was much different than it is today. While we understand that the FCC relies on scientific input from the Food and Drug Administration (FDA) and others to assess its RF safety guidelines, we are concerned that your proposal to maintain the 1996 safety standards fails to adequately address ongoing questions regarding the relevance of these standards to the realities and abundance of modern wireless technology.

A recent investigation by the *Chicago Tribune*<sup>2</sup> makes these questions abundantly clear. As you know, on August 21 the *Tribune* published test results showing that some popular cell phone models — including models made by Apple and Samsung — emit higher RF radiation levels than are allowed under the FCC's 1996 RF safety standards. For example, the Samsung Galaxy S8 tested at more than five times the FCC's exposure limit.

The *Tribune's* study, conducted by an independent and FCC-accredited laboratory, found that the FCC's 1996 cell phone testing requirements do not accurately reflect modern cell phone usage. Namely, the current standards do not require cell phone radiation levels to be measured at a distance replicating when a phone is being held against the human body. As the *Tribune* states:

Companies testing a new phone for compliance with the safety limit also are permitted to position the phone up to 25 millimeters away from the body — nearly an inch — depending on how the device is used. That's because the testing standards were adopted in the 1990s, when people frequently carried cellphones on belt clips.

In one phase of the *Tribune* testing, all phones were positioned at the same distance from the simulated body tissue that the manufacturers chose for their own tests — from 5 to 15 millimeters, depending on the model. Apple, for instance, tests at 5 millimeters.

But people now often carry phones closer to the body, in their pockets, which increases their potential exposure to radiofrequency radiation.

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<sup>1</sup> Federal Communications Commission, "Chairman Pai Proposes to Maintain Current Radiofrequency Exposure Safety Standards, 8 August 2019, <https://docs.fcc.gov/public/attachments/DOC-358968A1.pdf>.

<sup>2</sup> Chicago Tribune, "We tested popular cellphones for radiofrequency radiation. Now the FCC is investigating," 21 August 2019, <https://www.chicagotribune.com/investigations/ct-cell-phone-radiation-testing-20190821-72qgu4nzlfda5kyuhteijeh4da-story.html>.

To assess this kind of exposure, the *Tribune* asked its lab to conduct a second phase of testing, placing the phones 2 millimeters away from the simulated body — closer than any of the manufacturers' own tests and far less than the maximum distance allowed by the FCC.

The 2-millimeter distance was chosen to estimate the potential exposure for an owner carrying the phone in a pants or shirt pocket. Under those conditions, most of the models tested yielded results that were over the exposure limit, sometimes far exceeding it.

The *Tribune* also points out that “authorities in the 1990s set the federal exposure limit based solely on the heating risks of cellphone radiation, building in a 50-fold safety factor. But some researchers — and lawyers — have questioned whether the limit is safe enough.”<sup>3</sup> Additionally, the testing methods adopted in 1996 “didn’t address the anatomy of children and that of other vulnerable populations, such as pregnant women.”<sup>4</sup>

The *Tribune*’s investigation also notes that the FCC’s standards only require a single cell phone from a manufacturer to pass RF radiation tests before the model can be brought to market. They state that the manufacturer is able to select the testing lab, as well as the sample phone to be tested.

Moreover, even when the *Tribune* modified its original tests at the request of feedback from manufacturers such as Apple, its tests still yielded some results over the FCC’s safety limits. Apple once again alleged that the *Tribune* had not properly tested its iPhone models, but Apple declined to provide any specific details about the issues it claimed to have with the *Tribune*’s testing.

As you also know, a class-action lawsuit<sup>5</sup> citing the *Tribune*’s investigation was recently filed in California, Illinois, and Iowa. The lawsuit states that phone manufacturers “intentionally misrepresented” the radiation safety of their products by telling consumers that these devices “were safe to use on and in close proximity to their bodies.”

In light of the *Tribune*’s findings, we are pleased the FCC has stated it will conduct its own testing of the cell phone models highlighted in the *Tribune*’s investigation. We urge the FCC to take this investigation seriously, conduct it in good faith, and inform the public about its findings with complete transparency.

Additionally, given the *Tribune*’s findings, we urge you to reconsider your proposal not to update the FCC’s 1996 RF radiation safety standards. This is especially important given upcoming 5G small cell technology, which will utilize higher levels of RF radiation than ever before.

As we’ve previously indicated, when surveying publicly available research on the safety of RF radiation emissions, it is clear that additional research is needed to determine if RF radiation from wireless technologies has negative effects on human health. The American Cancer Society states that “most studies of people published so far have not found a link between cell phone use and the development of tumors. However, these studies have had some important limitations that make them unlikely to end the controversy about whether cell phone use affects cancer risk.” They continue:

First, studies have not yet been able to follow people for very long periods of time... Second, cell phone usage is constantly changing... Third, most of the studies published so far have focused on adults, rather than children... Cell phone use is now widespread even among younger children. It is possible that if there are health effects, they might be more pronounced in children because their

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<sup>3</sup> Chicago Tribune, “Lawsuit filed against Apple, Samsung after Chicago Tribune tests cellphones for radiofrequency radiation,” 29 August 2019, <https://www.chicagotribune.com/investigations/ct-cell-phone-radiation-lawsuit-apple-samsung-met-20190829-ye5h7fw6yvvauxpo367vqeg7pju-story.html>.

<sup>4</sup> Chicago Tribune, “We tested...”, 21 August 2019.


<sup>5</sup> Andrew Cohen, et al. v. Apple Inc., et al., Case No. 5:19-cv-05322, United States District Court for the Northern District of California, 23 August 2019, <https://www.documentcloud.org/documents/6354255-Cellphone-lawsuit-August-2019.html>.

bodies might be more sensitive to RF energy. Another concern is that children's lifetime exposure to the energy from cell phones will be greater than adults', who started using them at a later age.<sup>6</sup>


As we've continued to urge, the FCC must be completely transparent about its research on RF radiation, and it must make tangible efforts to inform the public about this research in a detailed manner, so that it can back up the safety claims it continues to make about modern wireless technology. Until it does so, public concern about wireless technology will continue to grow.

Thank you for your attention to this matter. We look forward to your reply.

Sincerely,



Peter A. DeFazio  
Member of Congress



Thomas R. Suozzi  
Member of Congress

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<sup>6</sup> American Cancer Society, "Cellular Phones," <https://www.cancer.org/cancer/cancer-causes/radiation-exposure/cellular-phones.html>.