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Division of Dockets Management  
U.S. Food and Drug Administration  
5630 Fishers Lane, Room 1061  
Rockville, MD 20852

**CITIZEN PETITION AND REQUEST FOR LEGAL COMPLIANCE**

**Legal Obligations of FDA Regarding Public Exposure to  
Non-Ionizing Radiation from Electronic Products**

Pursuant to 21 C.F.R. §§ 10.20, 10.30 (Citizen Petitions), Petitioner Americans for Responsible Technology and other petitioners Grassroots Environmental Education, Consumers for Safe Cell Phones, California Brain Tumor Association, Manhattan Neighbors for Safer Telecommunications, Michelle Lewis, Zen Honeycutt, Michele Hertz, and Laurie Brown hereby respectfully request that the Secretary of Health and Human Services (HHS) and the Commissioner of the Food and Drug Administration (FDA) fully execute, implement, fulfill and carry out their administrative obligations under 21 USC Federal Food, Drug and Cosmetic Act, Subchapter V, Part C Electronic Product Radiation Control, Section 360ii - Program of Control, regarding public exposure to non-ionizing radiation, a part of the electromagnetic spectrum. We further petition the FDA to produce and make public information detailing its activities and administrative actions that demonstrate full compliance with the specifications of the statute, especially as they relate to non-medical products and devices emitting this radiation.

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## SECTION 1. STATEMENT OF GROUNDS

Petitioners are individuals and non-profit organizations representing individuals who are, or have been directly, negatively, and substantially affected by the failure of FDA to adhere to basic and fundamental principles and requirements of its organic statute (21 U.S.C., Subchapter V) and administrative law, or to engage in the on-going risk assessment required.<sup>1</sup> FDA's repeated failure to fully comply with the plainly worded requirements in Subchapter V as it relates to electronic products and devices has resulted in a void of public information and exerted a serious and negative influence on medical practitioners and their patients, local, state, and federal officials, school administrators, parents, and other individuals, resulting in a clear and present danger to public health and a violation of public trust.

## SECTION 2. ISSUES INVOLVED

In 1968, Congress passed Public Law 90-602, "An Act to Amend the Public Health Service Act to provide for the protection of the public health from radiation emissions from electronic products," also known as the Radiation Control for Health and Safety Act of 1968. In its Declaration of Purpose, Congress wrote, "*The Congress hereby declares that the public health and safety must be protected from the dangers of electronic product radiation.*" The law was updated and codified into the current law in 1991,<sup>2</sup> with no significant change in its underlying purpose of minimizing the public's exposure to both ionizing and non-ionizing radiation.

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<sup>1</sup> As the Secretary has customarily delegated authority over these matters to the Food and Drug Administration, in this document we will hereafter refer only to FDA except when quoting the law.

<sup>2</sup> The Radiation Control for Health and Safety Act, P.L. 90-62, Subpart 3 (enacting then 42 U.S.C. Sec. 354) provided that "The Congress hereby declares that the public health and safety must be protected from the dangers of electronic product radiation. Thus, it is the purpose of this subpart to provide for the establishment by the Secretary of an electronic product radiation control program which shall include the development and administration of performance standards to control the emission of electronic product radiation from electronic products and the undertaking by public and private organizations of research and investigation into the effects and control of such radiation emissions." The Section 354 purpose and policy statement was repealed in P.L. 101-629, the Safe Medical Devices Act of 1990, Sec. 19(a)(3), but the underlying understanding of risks remains given the still-effective duty to "protect the public health and safety from electronic product radiation" by requiring "activities to minimize the emissions of and the exposure of people to, unnecessary electronic product radiation." (§ 360ii(a)(2)).

Over the past two decades the ubiquity of personal wireless devices, the deployment of hundreds of thousands of new small cell wireless antennas, the installation of millions of wireless utility meters, the outfitting of school classrooms with wireless routers, tablets, and smart boards, and the surge of popularity of personal wireless wearables and the myriad of other wireless devices now in near-constant use by the public has created a level of exposure to radiation unfathomable to the drafters of the 1968 law. Their belief that exposure to non-ionizing radiation would constitute an on-going and significant risk to public health was prescient.

The issue we address in this Petition is that FDA has failed to execute the clear obligations imposed by Congress, placing the agency in violation of the law. The determination of *risk* regarding human exposure to non-ionizing radiation has already been made by Congress. Because of the risk involved, Congress instructed FDA to *minimize* that risk by actively participating in the development of publicly available materials designed to help the public reduce its exposures to radiation emanating from electronic products. Despite acknowledging its authority in this area and its responsibility for protecting the public from hazardous and unnecessary exposure to radiation from electronic products,<sup>3</sup> Petitioners assert that these actions have not been, and continue not to be, properly taken by FDA, resulting in an escalating risk and significant harm to public health.

Administrative agencies such as FDA must adhere to their governing statutes and, like all agencies and individuals, obey the law. While the statute is equivocal as to whether the Commissioner has a mandatory duty to promulgate "standards" for human exposure, or whether a predicate finding is required,<sup>4</sup> no such leeway exists regarding the other clear obligations of FDA to carry out the activities enumerated in the law. These include:

- [P]lanning, conducting, coordinating, and/or supporting research, development, training, and operational activities to minimize the emissions of, and the

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<sup>3</sup> See, *inter alia*, <https://www.fda.gov/radiation-emitting-products/electronic-product-radiation-control-program>.

<sup>4</sup> Compare 21 U.S.C. § 360ii(a)(1) ("shall" "develop and administer performance standards..."); § 360kk(a)(1) "shall by regulation prescribe performance standards for electronic products to control the emission of electronic product radiation from such products if he determines that such standards are necessary for the protection of the public health and safety." (Emphasis added).

exposure of people to, unnecessary electronic product radiation [21 USC 360ii (a) (2)]

- [S]tudying and evaluating emissions of, and conditions of exposure to, electronic product radiation and intense magnetic fields [21 USC 360ii (a) (4)]
- [D]eveloping, testing and evaluating the effectiveness of procedures and techniques for minimizing exposure to electronic product radiation [21 USC 360ii (a) (5)].

These obligations are not dependent on an FDA determination of risk, or any arbitrary exposure level established by FDA or any other entity, and cannot be extinguished by other means. Congress understood that **any** reduction to a known health hazard will inevitably have a beneficial impact on public health. Petitioners note that FDA does have a Technical Electronic Product Radiation Safety Standards Committee, established in 1968.<sup>5</sup> But as if to underscore its failure to recognize its responsibilities under the law or take them seriously, the Committee has not met since 2016, and FDA has allowed the committee's membership to dwindle to just five out of the required 15 members. This situation has only recently been addressed by FDA after the matter was brought to the attention of the Court in *EHT v. FCC*.<sup>6</sup>

Moreover, because the purpose of the prescribed activities in Section 360ii is to protect public health and safety by having the FDA produce and make public materials to help members of the public reduce their exposure, activities that take place out of public view, such as private deliberations or discussions within FDA with no public record, public notice, or public participation, do not and will not satisfy the requirements of the statute.

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<sup>5</sup> This advisory committee was established in accordance with Section 21 U.S.C. 360kk(f)(1) of the Radiation Control for Health and Safety Act. The committee is supposed to advise FDA regarding proposed performance standards for electronic products which emit radiation.

<sup>6</sup> *Env'tl. Health Tr. v. FCC*, 9 F.4th 893, 904-906 (D.C. Cir. 2021) "EHT v. FCC"

## SECTION 3. SPECIFIC ACTIONS REQUESTED

Petitioners hereby respectfully request that the Commissioner direct the Centers for Devices and Radiological Health (CDRH), or such other new or existing division as he may designate, to take the following three actions to bring FDA into full compliance with the law.

### A. REQUESTED ACTION NO. 1

21USC 360ii (a) (2) requires FDA to "plan, conduct, coordinate, and/or support research, development, training, and operational activities to minimize the emissions of and the exposure of people to, unnecessary electronic product radiation."

#### 1. Planning, conducting, coordinating and/or supporting research

In its own "*Review of Published Literature between 2008 and 2018 of Relevance to Radiofrequency Radiation and Cancer*"<sup>7</sup> published in 2020, FDA fails to identify a single peer-reviewed study designed to help the public reduce its exposure in which FDA has been actively engaged regarding the planning, coordination, or support of the study.<sup>8</sup> Instead, FDA claims it regularly "monitors" scientific studies performed by others,<sup>9</sup> as if such passive activity satisfies the demands of the law. It does not.

The one study on non-ionizing radiation in which FDA actually played a role was the study conducted at FDA's request to determine whether or not non-thermal levels of radiation such as that from cell phones posed a cancer risk to humans.<sup>10</sup> That study, which fails to meet the requirements of the law since it is not about reducing

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<sup>7</sup> <https://www.fda.gov/media/135043/download>

<sup>8</sup> The review ignored hundreds of published, peer-reviewed independent scientific studies which demonstrated biological harm from exposure.

<sup>9</sup> See, *inter alia*, <https://www.fda.gov/radiation-emitting-products/cell-phones/do-cell-phones-pose-health-hazard> "The FDA's physicians, scientists, and engineers regularly analyze scientific studies and publications for evidence of health effects of exposure to radio frequency energy from cell phones."

<sup>10</sup> "The existing exposure guidelines are based on protection from acute injury from thermal effects of [non-ionizing] exposure, and may not be protective against any non-thermal effects of chronic exposures." FDA Nomination letter to National Toxicology Program, May 19, 1999. [https://ntp.niehs.nih.gov/ntp/htdocs/chem\\_background/exsumpdf/wireless051999\\_508.pdf](https://ntp.niehs.nih.gov/ntp/htdocs/chem_background/exsumpdf/wireless051999_508.pdf)

exposures, was nominated by FDA to the National Institutes of Health in 1999.<sup>11</sup> Preliminary results were released by the NIH's National Toxicology Program (NTP) in 2016, with an independent peer review panel releasing its own findings in 2018. The panel found that the study results showed "clear evidence" of an increased risk of cancer,<sup>12</sup> the highest level of scientific confidence. FDA, however, immediately disputed the study's findings, claiming, among other things, that the results were not conclusive.

The NTP study could have been useful in meeting the law's requirements, if FDA had alerted the public that exposure to non-ionizing radiation could increase their own risk of cancer. Instead, CDRH's Director Dr. Jeffrey Shuren issued a statement<sup>13</sup> in response to the independent panel's conclusion, asserting that the study's findings "*should not be applied to human cell phone usage,*" when, in fact, determining whether or not there was a potential risk to humans was the whole purpose guiding the study's design.<sup>14</sup> Dr. Shuren's statement, unsupported by any documentation, drew a sharp rebuke from the U.S. Court of Appeals for the District of Columbia Circuit in Washington, DC<sup>15</sup> for its "conclusory" nature, when the Court stated:

*"Such conclusory statements 'cannot substitute for a reasoned explanation,' for they provide 'neither assurance that the [FDA] considered the relevant factors nor [do they reveal] a discernable path to which the court may defer.' Am. Radio, 524 F.3d at 241. They instead represent a failure by the FDA to address the implication of Petitioners' studies: The factual premise — the non-existence of*

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<sup>11</sup> <https://ntp.niehs.nih.gov/getinvolved/nominate/summary/nm-n99019.html>

<sup>12</sup> <https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html>

<sup>13</sup> <https://www.fda.gov/news-events/press-announcements/statement-jeffrey-shuren-md-jd-director-fdas-center-devices-and-radiological-health-recent-national>

<sup>14</sup> The original 1999 FDA nomination of the subject for study defined its rationale as follows: "Little is known about the possible health effects of repeated long-term exposure to low levels of radio frequency radiation (RFR) of the types emitted by wireless communication devices, like cellular phones." See <https://ntp.niehs.nih.gov/getinvolved/nominate/summary/nm-n99019.html>

<sup>15</sup> *Env'tl. Health Tr. v. FCC*, 9 F.4th 893, 904-906 (D.C. Cir. 2021) "EHT v. FCC". See, *inter alia*, <https://www.fda.gov/radiation-emitting-products/home-business-and-entertainment-products/cell-phones>

*non-thermal biological effects — underlying the current radio-frequency guidelines may no longer be accurate.”*

We note here that FDA seems to believe its responsibility for planning, supporting or conducting research on reducing exposures is limited to the radiation emitted by mobile phones.<sup>16</sup> In its 2020 literature review, the agency goes to great lengths to explain how difficult it is to study the effect of non-ionizing radiation using animals because "*the effects of whole-body exposure do not reflect the real-world situation of localized exposure to the ear and head from a handset as used by humans.*" Here, intentionally or not, FDA misses the point. Whole-body exposure is exactly what the public is currently experiencing, resulting from the ubiquity and aggregate exposures of wireless devices in public spaces as well as private homes. FDA's negligence in failing to recognize and address this large and growing public exposure, and failing to advise the public about ways to reduce exposure, violates both the letter and spirit of this section of the law and puts public health at increased risk.

## **2. Planning, conducting, coordinating and supporting training and operational activities**

The law requires FDA to engage in training and operational activities that result in minimizing the public's "unnecessary" exposure to non-ionizing radiation. Given the wide array of potential exposures, this requirement might be satisfied by coordinating or conducting professional training of medical, educational, and commercial providers in techniques through which public exposure might be minimized. It could include participation at continuing medical education conferences. Due to the recent deployment of wireless technology in school settings, it should include evaluations of methods to reduce exposures of children in classrooms and coordination with the Department of Education to promulgate recommendations and best practices. At the very least, FDA should be requiring commercial providers to participate in the development of exposure reduction techniques, such as one-button wireless disconnects, which could then be promulgated by FDA, or FDA could develop its own exposure reduction techniques.

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<sup>16</sup> See, *inter alia*, <https://www.fda.gov/radiation-emitting-products/home-business-and-entertainment-products/cell-phones>



None of these activities, or any others that might reasonably satisfy the requirements of the law are being undertaken by FDA.<sup>17</sup> While FDA does include some cursory language on its website about how individuals may voluntarily limit their own exposure by taking simple steps such as reducing the amount of time spent on phones or using the speaker setting, it only does so in the context of actions it portrays as entirely unnecessary,<sup>18</sup> and which only pertain to cell phones. FDA is doing nothing about singular or aggregate exposures from other electronic products or workplace environments where prolonged and sustained exposure is unavoidable. FDA's innocuous, incidental and half-hearted advisories do not in any way constitute "support" for such measures or reasonable compliance with the law.

### **3. Conclusion: Requested Action No. 1**

For the foregoing reasons, Petitioners respectfully request the Commissioner to direct CDRH or such other division of FDA as may be capable of carrying out the requirements of this section to take such actions as may be required to bring FDA into full compliance with § 360 ii (a) (2), including regularly producing and making public information detailing the agency's actions that help consumers reduce their exposures and demonstrate compliance with the law. Such information should include details of specific actions taken by FDA including (1) research commissioned, organized, conducted and/or supported by FDA concerning methods or techniques for reducing exposures, (2) records of meetings, conferences or other events at which FDA solicited or presented scientific studies on exposure reduction, (3) publication of specific and dedicated web pages on FDA's website regarding this research and its conclusions,

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<sup>17</sup> FDA, through the Office of Medical Device and Radiological Health Operations (OMDRHO), a program office within the Office of Medical Products and Tobacco Operations (OMPTO), a part the Office of Regulatory Affairs (ORA), does conduct an annual conference and other activities designed to allow government agencies and medical professionals to share ideas and collaborate on methods to protect public health from some types of radiation exposure. However, the OMDRHO is focused exclusively on medical devices and radiological health products, and Congress did not limit the purview of FDA with regard to different types of radiation exposure. Accordingly, such efforts fail to extinguish the FDA's obligation to address **all** types of radiation exposure, including those identified in this Petition.

<sup>18</sup> See, *inter alia*, <https://www.fda.gov/radiation-emitting-products/cell-phones/reducing-radio-frequency-exposure-cell-phones> "There is no established health benefit from reducing an individual's exposure from cell phones."

and (4) notices of the publication of FDA's research specifically addressing non-ionizing radiation exposure reduction.

## **B. REQUESTED ACTION NO. 2**

21 USC 360ii (a) (4) requires FDA to study and evaluate emissions of, and conditions of exposure to, electronic products that emit non-ionizing radiation.

### **1. Studying Emissions of Electronic Products**

The number of electronic products that emit radiation has grown by orders of magnitude since passage of the original Radiation Control for Health and Safety Act of 1968. These products now include not only mobile phones, but routers, smart utility meters, cordless phones, GPS devices, wireless computer keyboards, tablets, virtual reality headsets, baby monitors, wearables and the myriad other radiation-emitting devices to which millions of Americans are exposed every day.

Petitioners are unable to find any evidence that FDA has engaged or participated in any publicly available research regarding the emissions of such devices, maintained any record of citizen complaints or adverse effects of exposure, participated in or directed any monitoring activities, or required manufacturers to do so. Available technologies that can accurately measure levels of non-ionizing radiation, especially aggregate levels from multiple devices which characterize the majority of public exposures today, remain unutilized by FDA. Instead, FDA seems to be relying on other federal agencies to do the research. The Federal Communications Commission (FCC) does require manufacturers to submit test results showing their individual devices comply with the agency's thermal-only emission standards, but the FCC does not have, by its own admission, either the authority or capacity to study, evaluate and promulgate techniques for reducing the risk to public health. That is the duty and legal obligation of FDA.

Miriam-Webster defines the word "study" as "*careful or extended consideration*" and "*careful examination of a phenomenon, development or question.*" and "*application of the*

*mental faculties to the acquisition of knowledge.*"<sup>19</sup> Congress clearly intended FDA to devote time, attention, and resources to considering, examining and understanding ways in which people are exposed to non-ionizing radiation and how they might reduce that exposure, including all of the ways mentioned above. FDA has repeatedly failed to comply with these statutory requirements.

## **2. Studying and Evaluating Conditions of Exposure**

The law also instructs FDA to engage in activities to study the conditions under which the public may be exposed to non-ionizing radiation, and to evaluate those exposures for the purpose of finding ways to reduce them. As the use of electronic products that emit non-ionizing radiation has grown exponentially, with virtually every man, woman and child now regularly exposed, often without their knowledge or consent, FDA is failing to monitor these exposures or evaluate the conditions under which they take place.

For example, the introduction of wireless technology into America's classrooms, where the exposure from multiple devices is nearly constant and affects the whole body of a uniquely vulnerable population, would, by any reasonable interpretation of the law, constitute a "condition of exposure" which demands investigation and evaluation by FDA. Yet Petitioners can find no publicly available evidence that FDA has studied, measured, or evaluated such exposures. There are no public reports of any FDA inspections of schools to measure cumulative or aggregate exposure levels in busy classrooms, or the effects of exposure on students, teachers, and staff. FDA maintains no records from schools of reported adverse reactions, and FDA's website contains no mention of any research the agency is supporting or conducting to evaluate the potential risk associated with exposures in schools, especially those experienced by very young children. FDA has issued no advisories or recommendations to schools, educational organizations, or teachers unions about reducing their exposures.

Another common radiation exposure for many people are the high bursts of radiation emitted by so-called "smart" utility meters. These bursts of radiation emanating from the meter

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<sup>19</sup> <https://www.merriam-webster.com/dictionary/study>

have caused many individuals, including several of the Petitioners, to experience acute symptoms often associated with exposure to non-ionizing radiation which are alleviated when the source of radiation is removed. These symptoms include headaches, dizziness, nausea, insomnia, tinnitus, confusion, and other symptoms. The installation of a smart meter has also triggered heightened electromagnetic sensitivity among a small but growing community of individuals who find their lives completely disrupted by the condition, and who cannot easily escape. Petitioners can find no evidence that FDA has engaged in any analysis or evaluation of the emissions of wireless utility meters, conducted any research to understand how bursts of non-ionizing radiation may impact humans differently from constant low levels, established a mechanism by which consumers can report adverse health reactions to such devices, or determined why some individuals are more sensitive to bursts of non-ionizing radiation than others, and what they can do about it. Under the plain language of the law, FDA is legally obligated to act but is failing to act.

The world's largest insurance companies, which employ legions of experts to evaluate potential risks, have decided that exposure to non-ionizing radiation poses a potential health risk so high it must be excluded from their commercial liability policies. An evaluation of the available science by experts at Swiss Re advises investors, "*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.*"<sup>20</sup> Lloyds of London warns its customers in its commercial liability policies that the company's insurance does not cover any claims "*directly or indirectly arising out of, resulting from or contributed to by electromagnetic fields, electromagnetic radiation, electromagnetism, radio waves or noise.*" Even the purveyors of wireless technologies acknowledge the risk involved and warn their investors in their SEC 10K filings that their future earnings may be adversely affected by liability claims due to exposures.<sup>21</sup> FDA is silent, issuing no advisories or warnings to the public, in spite of the law's clear requirement that it do so.

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<sup>20</sup> Swiss Re SONAR New emerging risk insights May 2019 Accessed March 21, 2023 at <https://www.swissre.com/institute/research/sonar/sonar2019.html>

<sup>21</sup> For example, this statement from Verizon's 2018 filing with the SEC: "Our wireless business also faces personal injury and wrongful death lawsuits relating to alleged health effects of wireless phones or radio frequency transmitters. We may incur significant expenses in defending these lawsuits. In addition, we may be required to pay

### **3. Conclusion: Requested Action No. 2**

For the foregoing reasons, Petitioners respectfully request the Commissioner to direct CDRH or such other division of FDA as may be capable of carrying out the requirements of this section to take such actions as may be required to bring FDA into full compliance with the law, and specifically to study and evaluate the conditions of the public's many sources of exposure to non-ionizing radiation, including the impact of peak exposures and chronic exposures of children occurring in schools, and to produce and make public regularly updated information detailing the agency's actions to help the public reduce its exposures. Such information should include details of specific actions taken by FDA including (1) the design, execution and/or results of independent research designed, performed or commissioned by FDA regarding various types of public exposures, especially *involuntary* exposures emanating from wireless utility meters, high levels of radiation in workplace environments, and exposures of children in school classrooms, (2) summaries of reports or tests performed by other agencies and independent experts with whom FDA has consulted about reducing exposures, and (3) publication of this information on dedicated web pages of the FDA website.

### **C. REQUESTED ACTION NO. 3**

21 USC 360ii (a) (5) requires FDA to develop, test and evaluate the effectiveness of procedures and techniques for minimizing exposure to electronic product radiation.

#### **1. Developing Procedures and Techniques for Minimizing Exposure**

In writing the law, Congress clearly intended for FDA to actively engage in developing plans, procedures, strategies, and techniques for minimizing the exposure of the public to radiation of all kinds. Such procedures might include working with wireless device manufacturers to provide a one-button disconnect that would immediately disable all wireless antennas. New cars could be outfitted with a switch to turn off all unnecessary wireless

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significant awards or settlements.”  
<https://www.sec.gov/Archives/edgar/data/732712/000073271219000012/a2018q410-k.htm>

circuits. Routers could be manufactured with circuits to automatically turn off when not in use or at night when users are asleep.

Public buildings could provide radiation-free zones for citizens. Colleges and universities could be encouraged to set aside spaces where non-ionizing radiation is minimized. Hotels could be encouraged to provide "Wi-Fi-free" rooms for individuals who suffer from electromagnetic sensitivity. All wireless devices, including cell phones, could be required to include more prominent consumer warnings about the hazards of exposure. FDA could engage with companies that provide shielding materials to reduce the transmission of radiation through walls and windows, and those that create equipment to test and monitor for radiation levels.

FDA's responsibility for developing techniques for minimizing exposure to electronic product radiation is not optional. FDA has been given the authority and responsibility by Congress, but has failed to engage in any of these, or other similar activities that meet even the minimum requirements of the law.

## **2. Testing the Techniques and Procedures for Minimizing Exposure**

FDA is required by law to *test* the procedures it has developed for minimizing the public's exposure to all types of radiation, but obviously there can be no testing of procedures if no procedures have been developed. If FDA doesn't at present have sufficient staff to meet this requirement, the agency should request appropriations from Congress to fund such activity. Human lives are at stake. It is not a matter of administrative or corporate convenience. FDA's responsibility and failure are clear.

## **3. Evaluating the Effectiveness of Procedures and Techniques**

Here again, FDA is unable to meet the requirements of the law because of its failure to carry out any of the activities specified earlier in this section. It's not up to FDA to decide which parts of the law it wants to comply with and which to disregard. If Congress wishes to change the law, it can. Barring such a change, FDA has no legal choice but to carry out the stipulated activities.

#### **4. Conclusion: Requested Action No. 3**

For the foregoing reasons, Petitioners respectfully request the Commissioner to direct CDRH or such other division of FDA as may be capable of carrying out the requirements of this section to take such actions as may be required to bring FDA into full compliance with the law, and specifically to develop or cause to be developed techniques for minimizing the public's exposure to non-ionizing radiation from the full array and aggregate emissions of electronic products to which people are exposed, and produce and make public regularly updated information detailing the agency's actions that demonstrate compliance with the law. The information should include details of specific actions taken by the agency including (1) specific techniques developed by or for FDA which result in minimizing human exposure to non-ionizing radiation, (2) meetings or conferences organized or attended by FDA where minimizing human exposure to non-ionizing radiation was discussed, (3) outreach efforts by FDA to acquire data about reducing exposure to non-ionizing radiation from third parties, (4) activities to educate the medical profession about techniques for reducing exposures, and (5) interim or final reports of FDA's related research or other relevant materials.

### **SECTION 4. PUBLICLY AVAILABLE INFORMATION IS REQUIRED**

#### **A. ACCURATE INFORMATION SERVES THE PUBLIC INTEREST**

The public concern over the risk from non-ionizing radiation emitted from electronic products has been deepened recently by studies questioning the adequacy of current federal safety guidelines to protect public health,<sup>22</sup> and media reports suggesting that the federal government is not focused on protecting the health of the public but instead on protecting the wireless industry from scrutiny.<sup>23</sup> The plain language of the statute suggests that Congress expects FDA to promulgate information to help the public reduce its risk, at least in part to help assure the public that there are ways to use electronic products safely.

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<sup>22</sup> International Commission on the Biological Effects of Electromagnetic Fields (ICBE-EMF) "Scientific evidence invalidates health assumptions underlying the FCC and ICNIRP exposure limit determinations for radiofrequency radiation: implications for 5G" *Environ Health* **21**, 92 (2022). <https://doi.org/10.1186/s12940-022-00900-9>

<sup>23</sup> *Inter Alia*, Peter Elkind, "How the FCC Shields Cellphone Companies from Safety Concerns" ProPublica, November 10, 2022, <https://www.propublica.org/article/fcc-5g-wireless-safety-cellphones-risk>

Congress actually got it right in 1968. It foresaw that certain values, particularly protection of the public from the risks of radiation, are imperative and superior to manufacturer or shareholder interests. Production and promulgation of publicly available information detailing the efforts of FDA to fully engage in a rigorous program of investigation, research, monitoring, and testing of the myriad wireless electronic devices currently in use every day by consumers, and otherwise fulfilling the requirements of the law, would provide local, state and federal elected officials, medical practitioners, school administrators, parents and other members of the public with tools to help them reduce exposures to those electronic devices, as Congress intended.

## **B. INFORMATION WOULD AID OTHER BRANCHES OF GOVERNMENT**

Federal agencies and other branches of the government, including the Federal Communications Commission, the Department of Commerce, Department of Transportation, Department of Labor, Occupational Safety and Health Administration, Centers for Disease Control, Department of Defense, Department of Education, Congressional Research Service and others which depend on scientific information from FDA to determine their own policies will benefit from knowing the results of efforts by FDA to evaluate and reduce the public's exposures to non-ionizing radiation in schools, factories, office buildings, electric vehicles, trains, airplanes and other environments.

Such information would also be consistent with FDA's legal obligation under § 360ii (6) which requires the Secretary of HHS to:

*"[C]onsult and maintain liaison with the Secretary of Commerce, the Secretary of Defense, the Secretary of Labor, the Atomic Energy Commission, and other appropriate Federal departments and agencies on (A) techniques, equipment, and programs for testing and evaluating electronic product radiation, and (B) the development of performance standards pursuant to section 360kk of this title to control such radiation emissions."*

Publication of the information on the FDA website, with notice and opportunities



for public comment will help fulfill the agency's mission to protect public health and build public confidence that the agency is acting in *their* best interests, not the interests of the wireless industry.

## SECTION 5. FDA'S FAILURE TO OBEY THE LAW IS PUTTING PUBLIC HEALTH AT RISK

Petitioners assert that FDA has a duty to act in good faith to convey accurate and truthful information to the public, and that the continued failure of FDA to abide by the clear and unambiguous language of the statute, combined with its unequivocal public stance that biological risks of exposure to non-thermal levels of non-ionizing radiation simply do not exist, is resulting in significant and growing harm to public health. This is manifested in numerous instances of irreversible but completely avoidable illness, mental anguish and stress among tens or hundreds of thousands of Americans who, because of FDA's negligence, may fail to attribute their own health conditions to over-exposure to non-ionizing radiation or worse, may develop a life-threatening illness.

### **A. MEDICAL PRACTITIONERS ARE NOT RECEIVING FULL DISCLOSURE OF RELEVANT MEDICAL INFORMATION FROM FDA**

Petitioners acknowledge that scientific debate exists regarding the various mechanisms by which acute or long-term exposure to non-ionizing radiation triggers biological changes, although many studies exist to strongly suggest possible culprits, including, most notably, oxidative stress.<sup>24</sup> However, the lack of scientific consensus regarding the root cause and mechanism of biological changes is not proof that such changes are not occurring, or that the science is settled on the subject, or that the public should bear the burden of proof of harm, especially when Congress has already recognized that a significant risk exists.

FDA's failure to advise the public on ways to reduce exposure, combined with its public stance on the issue of non-ionizing radiation from wireless devices is misleading and confusing to physicians and clinicians who – when faced with patients exhibiting a variety of

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<sup>24</sup> See, *inter alia*, The effect of radiofrequency electromagnetic fields (RF-EMF)) on biomarkers of oxidative stress in vivo and in vitro: A protocol for a systematic review, <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8668870/>

symptoms often associated with non-ionizing chronic radiation exposure – discount the possibility of a link to such exposure because they have been led to believe that this exposure is not a clinically relevant concern. As a result, physicians are misdiagnosing these conditions, making medical decisions, and prescribing medications for patients, all based on the false belief that FDA is actively carrying out its obligations under the law and has developed its official policy and position that the health risks associated with exposure to non-thermal levels of non-ionizing radiation are *de minimis*.

The development of any official FDA policy is subject to the Administrative Procedure Act (APA) (5 U.S.C. Chapter 5), the Congressional Review Act, the Paperwork Reduction Act, the Regulatory Flexibility Act and various Executive Orders. Petitioners can find no substantial evidence that FDA has engaged in any of the necessary steps to develop an official policy regarding human exposure to non-ionizing radiation from electronic devices, or any documentation from FDA about the basis for its claim of safety or acknowledgement of the vigorous scientific debate over this issue.

Nevertheless, FDA has articulated a *de facto* policy, whether official or not. FDA's failure to research, analyze and promote techniques for reducing exposures is steering medical professionals away from information that may help them diagnose and treat medical conditions, which may in turn be caused by unnecessary exposures. This is a serious breach of the agency's most fundamental duty of care.

## **B. FDA IS FAILING TO ADVISE SCHOOL OFFICIALS ABOUT REDUCING EXPOSURES IN CLASSROOMS**

Today's school classrooms are filled with wireless technology. In elementary schools, most students are provided with their own personal wireless device for use in class, and the classroom itself is outfitted with wireless routers, smart boards, and projectors among other wireless educational products; in secondary schools, personal wireless computers are required. In addition, many students have their own personal cell phones, making school classrooms

potentially "hot" environments for non-ionizing radiation with dozens of devices operating simultaneously in a confined area.

The implementation of wireless technology in classrooms is taking place in a regulatory vacuum caused by FDA's failure to implement the measures prescribed by Congress to avoid just such a situation. No other federal agency has been empowered, indeed *directed*, to identify situations such as school classrooms in which large numbers of people - in this case, children - are being regularly exposed to non-ionizing radiation from wireless devices, and to undertake efforts to reduce that exposure. FDA alone currently has this oversight authority and responsibility.

In the absence of FDA action, school administrators, parents and teachers are going along with the wireless industry's relentless push to transform education into a digital service based on the assumption that FDA has fulfilled its legal obligation to develop, test, evaluate and promulgate procedures and techniques for minimizing exposures, and that schools are complying with those recommendations. That is not the case.

Teachers, many of whom are of child-bearing age, are being exposed throughout the day to the cumulative non-ionizing radiation emanating from all wireless devices in the classroom. Some studies have shown that exposure during pregnancy can disrupt normal brain development;<sup>25</sup> nevertheless, the FDA is mute, neither alerting young teachers to the potential for harm from constant exposure nor carrying out the activities prescribed by law that could provide teachers and administrators with information to help them reduce exposures in classrooms.

Parents of children suffering from acute symptoms of over-exposure to non-ionizing radiation in schools are facing an impossible choice: watch their children continue to suffer, day after day, or pull them out of school and provide some form of home schooling, which for working families may be impossible. Their concerns about their children are often summarily

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<sup>25</sup> Aldad, et al, Fetal Radiofrequency Radiation Exposure From 800-1900 Mhz-Rated Cellular Telephones Affects Neurodevelopment and Behavior in Mice, Sci Rep. 2012; 2: 312.

dismissed by uninformed school nurses or school administrators, who trust FDA's unfounded claims that there are no non-thermal effects from exposure to non-ionizing radiation. School officials also cite claims by manufacturers that each of their devices meets FCC guidelines - guidelines which, in turn, rely completely on the endorsement of FDA. In the absence of any advisories or warnings from FDA, school administrators lack any information on which to base decisions about the deployment of wireless devices and products – the very opposite of what Congress intended.

### **C. FDA IS FAILING TO ADVISE PARENTS ABOUT HOW TO REDUCE EXPOSURES FOR SMALL CHILDREN**

Today's consumer marketplace is flooded with wireless devices of all kinds, from smart diapers to the Smart Elderly Tracker. According to researchers, the average American household now has 16 internet-connected devices,<sup>26</sup> many of them wireless. Parents of pre-teens are besieged to provide their children with smart phones, game consoles, drone controllers, and other wireless devices. Peer pressure to have access to messaging apps on electronic devices is intense. Researchers at Stanford University found that about 25% of children received phones by age 10, and 75% by age 12. Nearly all children had phones by age 15 years.<sup>27</sup>

Instead of providing any information about the large and robust body of developing science regarding potential biological harm from exposure or carrying out its own evaluations as required by law, the FDA's website conveys a false and inaccurate sense of security and safety to anxious parents who may have concerns about the health and safety of their children. It boldly proclaims:

*"Current scientific evidence does not show a danger to any users of cell phones from radio frequency [non-ionizing] energy, including children and teenagers."<sup>28</sup>*

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<sup>26</sup> <https://www.parksassociates.com/blog/article/04272022>

<sup>27</sup> <https://med.stanford.edu/news/all-news/2022/11/children-mobile-phone-age.html>

<sup>28</sup> <https://www.fda.gov/radiation-emitting-products/cell-phones/children-and-teens-and-cell-phones>

This is a blatantly false statement. There *is* current scientific evidence showing a danger to users of cell phones. FDA may not like the results or choose not to assign the benefit of the doubt to studies showing harm, but the agency does not serve the interest of public health by ignoring or discounting important scientific studies – including its own study – that show an elevated risk of harm. Moreover, FDA has failed to engage in the legally required activities that that would result in alerting the public to possible harm and advising them on ways to lower their risk of harm.

It is well established that children are not just little adults; their rapidly developing physiology, behavioral patterns and immature detoxification systems make them more prone to environmental insults than adults. Among other things, their thinner skulls allow for the deeper penetration of non-ionizing radiation into the brain. Despite solid scientific evidence of this phenomenon, FDA has not conducted or supported any publicly available research into the typical patterns of electronic product use by children and teenagers or developed any procedures to reduce their exposures, both of which are required by law.

Any inquisitive parent, visiting FDA's website for information on the possible health risks of exposure to radiation from electronic devices would be misled and falsely comforted by the statements and pictures found there and assume that FDA's statement is based on rigorous scientific inquiry and compliance with the law. They would be tragically wrong.

#### **D. FDA IS FAILING TO ADVISE UTILITY CUSTOMERS ABOUT REDUCING EXPOSURES FROM SMART METERS**

According to the U.S. Energy Information Administration, there are now more than 111 million Advanced Metering Infrastructure (AMI) or "smart" utility meters installed in the United States, and as of 2018, more than 80% of them had been installed on residential buildings.<sup>29</sup> These meters provide the utility with detailed information about the customer's use of electricity (similar types of meters are used for monitoring and reporting gas and water),

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<sup>29</sup> <https://www.eia.gov/tools/faqs/faq.php>

including the exact time of usage. Some meters also allow the utility to restrict or cut off the customer's service. AMI meters use pulsed non-ionizing radiation to transmit large amounts of data at various intervals throughout the day.

There is increasing evidence that pulsed, polarized radiation has a greater effect on human biology than non-pulsed signals. In 2011, personnel at the U.S. Army Medical Research Detachment of the Walter Reed Army Institute of Research and the Air Force Research Laboratory at Brooks Air Force Base conducted a review of the extensive scientific literature regarding the biological effects of pulsed radiation that had been developed by Russian scientists. The authors noted:

*"Unfortunately, most of this research was published in Russian; these publications are scarcely available in the West and have not ever been reviewed in English. Even some key findings, which may affect the conceptual understanding of interaction mechanisms and approaches to [non-ionizing radiation] safety, seem to be not known in the West, and their replication in Western laboratories has never been attempted."<sup>30</sup>*

Petitioners can find no evidence that FDA has evaluated these kinds of exposures, or worked with manufacturers to reduce exposures, even though more than 90% of residential households now have at least one pulsing electronic meter attached to their home which they can neither turn off nor move. The failure of FDA to investigate this widespread public exposure violates Congress' explicit instruction to study and evaluate the emissions of, and conditions of exposure to, electronic product radiation as well as its directive to develop, test and evaluate the effectiveness of procedures and techniques for minimizing exposure to such devices.

Petitioners note here that hundreds of individuals have previously submitted comments to FDA regarding serious health problems which developed shortly after the installation of a "smart" utility meter on their home or apartment. While correlation is not causation, hundreds of field reports of adverse health conditions would normally trigger an immediate response from

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<sup>30</sup> Pakhomov and Murphy, " A Comprehensive Review of the Research on Biological Effects of Pulsed Radiofrequency Radiation in Russia and the Former Soviet Union" *Advances in Electromagnetic Fields in Living Systems* (pp.265-290) (2011)

FDA and an investigation of potential causes. In this case, there was no response, no investigation, and no compliance with the clear letter of the law. The burden has been placed entirely - and unfairly- on the consumer, as FDA continues to ignore its legal responsibility.

#### **E. FDA IS FAILING TO ADVISE EMPLOYERS ABOUT HOW TO REDUCE WORKPLACE EXPOSURES**

Today's modern workplaces, from factory floors to executive suites, are filled with wireless technology, connecting workers to their superiors and each other. Local area networks pervade virtually every business environment, connecting wireless computers, printers, scanners and myriad other wireless devices.

Wearable wireless devices, first popular as a trendy fashion accessory, are now taking their place as required equipment in a growing number of manufacturing, warehousing and distribution situations, with estimates of wearable devices now exceeding one billion worldwide.<sup>31</sup> Workplace wearables are promoted as important elements to improve worker safety and comfort but can also be used to monitor employee behavior and precise locations during the workday. Some workplace environments are now using "smart helmets" that continuously monitor employees' location, physical symptoms or chemical exposures and wirelessly transmit data to central servers.

This type of near-constant, close proximity use of wireless technology is entirely unmonitored and unprecedented, and is taking place in a regulatory vacuum, with no pre-market safety testing, and subject only to long-outdated non-ionizing radiation exposure guidelines developed by engineers in the 1980s based on very limited studies of monkeys and rats.

FDA has again failed to evaluate these kinds of exposures, or promulgated any recommendations to employers or employees on how to they can reduce them. Employers, questioned about the relative safety of such exposures or faced with employees complaining of headaches, nausea, dizziness, tinnitus or other symptoms commonly associated with exposure to non-ionizing radiation, are relying completely on manufacturer's claims of compliance with FCC

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<sup>31</sup> <https://www.statista.com/statistics/487291/global-connected-wearable-devices/>

standards, which themselves rely on the unsubstantiated and conclusory assertions by the FDA that there are no risks associated with exposure to non-thermal levels of non-ionizing radiation. This chain of reliance by employees, employers, manufacturers and the FCC is built entirely on the premise that FDA is, and has always been, in full compliance with the law. It is not.

## SECTION 6. CONCLUSION

FDA's website boasts that the agency relies on "*one of the world's most comprehensive and effective networks of public health and consumer protections*"<sup>24</sup> as it regulates food and food ingredients, ensures the safety and effectiveness of drugs and medical devices, and takes steps to make sure cosmetics, medical products and consumer products that emit radiation do no harm.

To accomplish its mission, the agency relies on the consumer protection laws enacted by Congress which give the agency this authority.

But the same laws that give the agency its authority to regulate also confer certain enumerated legal obligations on the agency to perform specified activities. In this instance, FDA has chosen to use the law when it wants to enforce its rules and regulations, but completely and blatantly ignore the law when it applies to its own conduct. The freedom to pick and choose which parts of the law it is obligated to obey was never granted to the FDA by Congress.

For the reasons above, Petitioners ask the Commissioner to grant this Petition and order such actions as may be required to bring the agency into full compliance with the law.

## SECTION 7. ENVIRONMENTAL IMPACT

Petitioners claim a categorical exclusion under one or more provisions of 21 C.F.R. §§ 25.30- 25.34.



## SECTION 8. CERTIFICATION

The undersigned certifies, that, to the best knowledge and belief of the undersigned, this petition and its attachments includes all information and views on which the petition relies.



Douglas A. Wood  
Founder and National Director

## SECTION 9. STATEMENTS OF PETITIONERS

*All petitioners have granted permission for their statements to be made part of the public record.*

Statement of Grassroots Environmental Education  
Statement of Consumers for Safe Cell Phones  
Statement of the California Brain Tumor Association  
Statement of Manhattan Neighbors for Safer Telecommunications  
Statement of Michelle Lewis  
Statement of Zen Honeycutt  
Statement of Michele Hertz  
Statement of Laurie Brown



184 Main Street • Port Washington • New York • 11050 • (516) 883-0887 • [www.GrassrootsInfo.org](http://www.GrassrootsInfo.org)

## Statement of Grassroots Environmental Education

This document is submitted under penalty of perjury in support of the Citizens Petition filed by Americans for Responsible Technology regarding the failure of the FDA to abide by the clear and unambiguous requirements of the law regarding public exposure to radiofrequency (RF) radiation from all types of wireless devices.

Grassroots Environmental Education (Grassroots) is a science-based non-profit organization with a mission to inform the public about the links between common environmental exposures and human health, and to empower individuals to act as catalysts for change in their own communities.

Our work in the area of RF radiation and human health began in 2012, when we were introduced to the work of Dr. Hugh Taylor at Yale University and his team of researchers who had just published a study demonstrating that the offspring of mice exposed to radiation from a cell phone had abnormal brain development and behavioral characteristics. The study was the basis for our development, in partnership with Dr. Devra Davis of Environmental Health Trust, of the BabySafe Project ([www.BabySafeProject.org](http://www.BabySafeProject.org)). This project warns pregnant women not to keep their cell phones in a pocket over their developing babies or use their pregnant belly as a platform for their wireless laptop or tablet.

That project, and all of our ensuing work to inform the public about the potential risks of exposure to RF radiation was necessitated because of the failure of the FDA to carry out its most basic function: to make the public aware of potential health risks and provide information on reducing those risks.

It was only recently that we learned that this mandate to keep the public informed about the potential dangers associated with exposure to RF radiation is actually part of a 1968 law issued by Congress because of what Congress understood even back then to be a serious public health hazard. We were shocked to realize that **all of our work to warn the public about exposure is work that the FDA was supposed to have been doing for more than half a century.**

Grassroots has created websites, pamphlets, flyers and tip cards with accurate, science-based information about the potential harm from RF radiation exposure, and simple steps that can be taken to reduce that risk. We have attended conferences and trade shows, sent staff to testify at hearings and events across the country, engaged professional lobbyists to help carry our message to legislators in states from Connecticut to California. We have made hundreds of presentations to local groups throughout the Northeast, and handled phone and email inquiries

from thousands of individuals whose lives have been turned upside down by health problems associated with exposure to RF radiation.

We are particularly concerned about potentially elevated RF radiation exposures experienced by children in school classrooms utilizing wireless technology. We have developed and promoted an entire program (TechSafeSchools.org) to warn school administrators of the potential risk of chronic RF radiation exposure for students. The program is based in part on the legal concept of "Duty of Care" which all administrators have to ensure the safety of learning environments. This is exactly the same ethical and moral obligation that FDA has to the American people.

Our tireless work to try and protect people from RF radiation is **not** our job. This large expenditure of time, money, and resources was only made necessary because of FDA's refusal to abide by the law, and its flagrant disregard for the safety and health of the American people. We urge the FDA to re-think its cavalier attitude toward this growing public health threat and fully engage in the activities Congress has mandated.

Sincerely,

A handwritten signature in black ink, reading "Patricia J. Wood". The signature is written in a cursive style with a large, looping initial "P" and a long, sweeping tail that extends to the right.

Patricia J. Wood  
Executive Director

**DECLARATION OF CYNTHIA FRANKLIN  
ON BEHALF OF  
CONSUMERS FOR SAFE CELL PHONES**

April 23, 2023 - I, Cynthia Franklin, hereby state, under penalty of perjury, that the following information is true to my knowledge, information, and belief:

I am the President of Consumers for Safe Cell Phones (“CSCP”), a 501(c)(3) non-profit organization. As the group’s name suggests, CSCP educates consumers as to ways to reduce microwave radio frequency radiation (RFR) exposure from cell phones, tablets, WIFI routers and other wireless devices.

This statement is submitted in support of the Citizens Petition filed by Americans for Responsible Technology and other petitioners pursuant to FDA's failure to abide by the language of 21 USC 360ii.

CSCP has approximately 5,800 social media followers who regularly receive information and advice from CSCP. The group also communicates with the public through webinars and online informational articles. CSCP provides updated information to its followers on, among other matters, the science and research being conducted on RFR and potential biological impacts. In offering these services, CSCP does not have the resources to conduct its own scientific studies, but instead reviews information from publicly available sources, including the FDA.

Congress intended that the FDA, as the nation's premiere public health agency, should be the source of such studies; but, the FDA has failed to follow the law, causing CSCP to expend significant time, effort and resources researching and disseminating other sources of reliable scientific information.

One issue CSCP is focused on is the federal regulatory RFR exposure compliance testing procedures for approving the marketing and sale of cell phones. Cell phone manufacturers are not required to test their products directly against the body even though it is well known that consumers regularly wear and use their cell phones in shirt and pants pockets and bras.

In 2012, the U.S. Government Accountability Office (GAO) published the report, **GAO-12-771** “Telecommunications: Exposure and Testing Requirements for Mobile Phones

Should Be Reassessed” in which it was concluded that:

*“By not formally reassessing its current limit, FCC cannot ensure it is using a limit that reflects the latest research on RF energy exposure. FCC has also not reassessed its testing requirements to ensure that they identify the maximum RF energy exposure a user could experience. **Some consumers may use mobile phones against the body, which FCC does not currently test, and could result in RF energy exposure higher than the FCC limit.**”*

While the FCC may possess legal authority to set exposure standards for products it regulates, it is the FDA which has the authority, capacity, and legal responsibility to provide the scientific foundation for such standards. It is the FDA, not the FCC, which is supposed to *“plan, conduct, coordinate, and support research, development, training, and operational activities to minimize the emissions of and the exposure of people to, unnecessary electronic product radiation.”* It is the FDA, not the FCC, which is supposed to evaluate the kinds of exposures people are experiencing as they use electronic devices that emit RFR. And it is the responsibility of the FDA, not the FCC, to develop ways in which cell phones can be made safer.

Cell phone manufacturers are substantially underestimating actual RFR exposure levels when demonstrating compliance with the FCC’s RFR exposure limits. The 2012 GAO report states that federal testing procedures for wireless devices allow consumers to be exposed to RFR levels “higher than the FCC limit.”

The FDA claims on its website that it provides guidance to “federal agencies on techniques and programs for testing and evaluating electronic product radiation:”

*“Under the law, the FDA is responsible for, among other things: Consulting with other federal agencies on techniques and programs for testing and evaluating electronic product radiation. For example, the FDA provides scientific input and expertise to the Federal Communications Commission (FCC). The FCC sets limits on the emissions of radio frequency energy by cell phones and similar wireless products.”*

This statement implies that FDA is in full compliance with the law and has carried out all of the activities required by the law. Yet there is no publicly available evidence that this is true. There are no FDA studies (other than its own incriminating study curiously disavowed by the agency), and no record of FDA conducting any other research or investigation to support its conclusion that the exposure being experienced every day by millions of Americans is safe.

On August 13, 2021, the DC Circuit Court of Appeals in its ruling in Environmental

Health Trust v The Federal Communications Commission (EHT v FCC) found:

*“...the Commission’s [December 4<sup>th</sup>, 2019] order arbitrary and capricious in its failure to respond to record evidence that exposure to RF radiation at levels below the Commission’s current [thermal] limits may cause negative health effects unrelated to cancer. That failure undermines the Commission’s conclusions regarding the adequacy of its testing procedures, particularly as they relate to children.”*

An even more alarming statement from the EHT v FCC ruling is that ***“the factual premise - the non-existence of non-thermal biological effects — underlying the current RF guidelines may no longer be accurate.”***

Thousands of studies – including FDA's own multi-million dollar RFR study documenting "clear evidence" of cancer from cell phone exposure<sup>1</sup> - have documented serious biological harm from exposure to levels of RFR far below those that could possibly be powerful enough to cause heating of tissue. This means that the current FCC testing guidelines, based solely upon protection from heating, are thousands, possibly even hundreds of thousands of times more lenient than limits that would be necessary to protect the public from non-thermal exposures.

As the Court found in EHT v FCC, the FCC’s 27 year old exposure limits are based upon an outdated assumption that the only harm from RFR is that of heating – and the implications of this regulatory failure are a major public health threat, ***“particularly as they relate for children.”***

It is unclear why the FDA believes that the current RFR limits, which were adopted 27 years ago, still protect us even though patterns of use and the newer, more biologically harmful pulsed RFR exposures have changed significantly since 1996, with the amount of radiation we are exposed to on a daily basis increasing substantially.

The FDA has left all of us in the dark on how and why it decided that current research on biological risks from “non thermal” levels of RFR exposure does not warrant a change in federal RFR standards or cellphone testing procedures. The FDA has ignored all the scientific research documenting biological harm at low exposure levels far below those “heating-only” exposure limits currently being used by FCC in their testing protocols.

With seemingly little concern for the health and safety of the public, the FDA presents

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<sup>1</sup> <https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html>

confusing and conflicting advice on its website<sup>2</sup> and in public statements, assuring everyone that cell phones are safe even if used directly against the body while receiving RFR levels in excess of the FCC's limits...*even with unlimited use by children and pregnant women.*

This absolute regulatory failure by the FDA means that CSCP now has to divert resources toward efforts to counter the disinformation being disseminated by the FDA website, as well as from biased and unfounded opinion reports and misleading public statements issued by Jeffrey Shuren, director of FDA's Center for Devices and Radiological Health.

This means CSCP is not able to supplement the information that it provides to its followers with what should be the most comprehensive assessment of RFR scientific research to date by the FDA, the agency charged with protecting the public from RFR exposures.

*Cynthia Franklin*

Cynthia Franklin, President

Consumers for Safe Cell Phones

829 Briar Rd

Bellingham, WA 98225

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<sup>2</sup> <https://www.fda.gov/radiation-emitting-products/cell-phones/scientific-evidence-cell-phone-safety>

## Statement of the California Brain Tumor Association

My name is Ellen Marks. I am the founder of the California Brain Tumor Association (CBTA) and I am submitting this declaration in support of the Citizens Petition by Americans for Responsible Technology and other petitioners regarding FDA's failure to follow the law and develop a Program of Control to protect consumers who are unaware of the potential danger posed by cell phones and other wireless devices.

In May of 2008, my seemingly healthy 56 year-old husband Alan had a grand mal seizure and subsequent diagnosis of a brain tumor. He was in real estate development and sales and always held his cell phone to his right ear, exactly where the tumor developed. He used the cell phone virtually all day, every day, holding the device against his head as he talked, unaware that such behavior could result in the development of brain cancer. FDA's failure to study these kinds of exposures, evaluate their potential health risks, develop techniques for reducing exposures and alert the public to the potential danger was directly responsible for my husband's condition.

In September of 2008, I testified at a Congressional hearing on Cell Phones and Health. A representative from the FCC was also there, and when asked why they had not changed their outdated obsolete guidelines since 1996, he responded that Congress had not instructed them to do so. He also stated they have no scientific expertise in this area; they defer to other government agencies like the FDA. I later learned that because the FDA had failed to follow the law, it was unable to provide the FCC with any scientific foundation on which to base its guidelines.

In 2012 I went to Washington again and met with officials of the General Accounting Office (GAO) at their request. They had been asked by several legislators to investigate this issue. The GEO released its report a short while later, instructing the FCC to reassess their guidelines for human exposure to cell phones. The FCC eventually opened a formal Notice of Inquiry and received thousands of comments from experts and individuals harmed by their exposure to wireless radiation. The FCC ignored the comments in their entirety and in 2019 decided - arbitrarily and capriciously -to keep the outdated guidelines in place.

The FDA, the nation's premiere public health agency, and the one charged with the responsibility for developing a Program of Control, provided a letter to the FCC saying the agency thought the current guidelines were just fine. This flimsy and unsupported document earned the FDA a sharp rebuke from the federal court in EHT et al v. FCC. (2019), which called the letter "conclusory" and rejected it as an adequate basis for the FCC's decision.

The FDA's action, or inaction, impacted my husband and millions of others. My husband had his first craniotomy in June of 2008. He was fortunate, as his glioma was a grade 2. However, it affected his cognitive abilities and behavior greatly. As his neuropsychiatrist stated: "This tumor set off a nuclear bomb in your living room." This tumor, caused by exposure to his cell phone and a lack of science-based information from the FDA, robbed me of my real husband and our 3 children of their real father. In 2020 his tumor returned and this time the doctors informed us it is terminal. He recently underwent another craniotomy and is not doing well.



My husband had no other exposures to radiation or other risk factors which are likely to be the primary cause of his brain tumors. There is excellent science proving the link to cell phone radiation, yet the FDA is ignoring its legal responsibility to conduct research, evaluate the different kinds of exposures which people are receiving, and develop ways to minimize exposures to devices like cell phones. It is pretending it has done the research to support its conclusions, but like Han Christian Anderson's fable about the Emperor's New Clothes, there is nothing there. The FDA hasn't done the work, but instead, continues to spread misleading and unsupported information that is putting the public at risk.

In 2019 Dr. Jeffrey Shuren, director of the Center for Devices and Radiological Health at the FDA, responding to questions posed by Representative Anna Eshoo concerning radiofrequency radiation and health, furnished an unsigned, so-called "scientific review" which was neither scientific nor peer reviewed. The report read as though it was written by the cell phone industry. This bogus document, filled with only industry funded studies, appeared to appease Rep. Eshoo and other members of Congress, and the inquiry died. What FDA failed to acknowledge is that they never performed the activities required by the law, and thus were misleading Congress about their role.

Because of FDA's failure to follow the law and provide science-based information to the public, I have spent many hours of my life working to help cities and states adopt cell phone laws that do what the FDA is supposed to do - require retailers to post advisories about the dangers of exposure at the point of sale. The public wants this, but the industry has used the courts to block any such laws. In Berkeley, CA the law prevailed all the way to the Supreme Court of the United States. At the last moment the FCC joined in the case, stating they already have FDA-approved guidelines in place and therefore Berkeley's law was pre-empted. The Court agreed with the FCC, and once again, our government agencies kept the truth from the public, under the guise of already having provided "science-based" information. The plain fact is, the FDA/FCC guidelines are obsolete. They do not protect human health and are a disgrace and disservice to the American people.

My husband's cancer from his cell phone has destroyed our lives. Another victim commented to me that "the only thing worse than dying from a brain tumor is living with one." I agree. It is a horrific disease which affects the entire family. I am not foolish enough to advocate against the use of cell phone use. This technology is here to stay. But we do need safer equipment (which I understand the telecom industry has already patented but not yet released), clear use instructions at the point of sale, and most importantly federal guidelines that truly protect human health. It's time for the FDA to follow the law and do its job.

Under penalty of perjury I submit this declaration.

*/s/Ellen Marks*  
Ellen Marks

# Camilla R. G. Rees

*Manhattan Neighbors for Safer Telecommunications*

*www.manhattanneighbors.org*

*crgr@aol.com - 415-992-5093*

April 18, 2023

Division of Dockets Management  
U.S. Food and Drug Administration  
5630 Fishers Lane, Room 1061  
Rockville, MD 20852

*This letter is in support of the Citizen Petition and Request for Legal Compliance with the Legal Obligations of the FDA Regarding Public Exposure to Non-Ionizing Radiation from Electronic Products submitted by Americans for Responsible Technology and other Petitioners.*

My name is Camilla Rees. I was seriously injured by Radiofrequency Radiation (RF) exposures on several occasions dating back over 15 years. Initially, by using a cell phone against my head, then severely impacted by a neighbor's wireless router that was on the other side of a wall from my pillow for several months, as well as in two office environments. As a result, I have dedicated much of my time to educating about cell phone and wireless risks through [Manhattan Neighbors for Safer Telecommunications](http://www.manhattanneighbors.org), [ElectromagneticHealth.org](http://ElectromagneticHealth.org) and through policy work via the National Institute for Science, Law and Public Policy in Washington, D.C. By strictly limiting RF exposures I function well today, but this required me to retreat from city life, take time off to restore my health, and to live in an area without commercial activity, to a great degree, relatively speaking, very isolated. The quality of my daily life and career potential have been significantly impacted.

Like millions of Americans, when I first started using a cell phone I assumed the FDA had thoroughly evaluated cell phones for safety. I assumed the same about other electronic devices and equipment emitting Radiofrequency Radiation, such as computers, wireless routers, tablets, smart meters, etc. When cell towers increasingly appeared in cities, on highways, and when antennas appeared in residential neighborhoods on utility poles, near 2nd floor bedroom windows, I assumed the same--that this technology would not have been allowed on the market were it known to be dangerous for human or environment health.

I never imagined that volumes of science showing risk from this radiation would be suppressed in this country, with politicians and regulators turning a blind eye to very serious risks, as happened decades ago with tobacco risks, but this is what I found. I trusted that when it came to public health a genuine commitment to integrity existed in the United States at the FDA.

- *I assumed, incorrectly, that the FDA had reviewed the safety of radiation emitting telecommunications technologies, as it does new drugs or medical devices (including Radiofrequency Radiation-emitting medical devices).*
- *I was aghast to learn the FDA officially does not review the safety of radiation emitting telecommunications technologies before they are allowed on the market, while the FCC claims it relies on the safety expertise of the FDA and that it considers opinions of the FDA in setting its safety guidelines for Radiofrequency Radiation.*
- *I later learned thousands of scientific studies dating back 80+ years document risks from Radiofrequency Radiation, and that this large (and ever growing) body of research includes many detailed scientific reports about risks prepared [by the U.S. government itself](#), such as by the Naval Medical Research Institute (1971), NASA (1972, 1981), Defense Intelligence Agency (1976), EPA (review draft 1990, suppressed), U.S. Air Force (1994), Department of the Army (1998, declassified 2006), the National Institute on Drug Abuse /NIH with the Department of Energy (2011), Department of Interior (2014) and the National Institute of Environmental Health Sciences/NIH National Toxicology Program (NTP) (2018).*

**If the FDA had been doing its job, thoroughly researching the risks of these technologies, and informed the FCC as to what would be acceptable exposure limits for cell phones and wireless technologies from a biological perspective, we would be living in a different world today.**

All of us would not be blanketed in harmful radiation, indoors and out, impacting our immune systems, DNA, neurological function, cognitive function, and much, much more. Fiber optic cables to the premises would be the technology of choice to access the Internet, affording advanced, far faster and more energy efficient Internet communication without any of the health risks (As described in the 2018 policy paper, "[Re-Inventing Wires: The Future of Landlines and Networks](#)").

If the FDA had done its job, I would have been informed of the risks from cell phones and wireless devices and been able to make informed choices about exposures to these technologies. I would likely not have purchased a cell phone, or at least never used it against my head, or used it frequently, or for long durations.

If the FDA had done its job, over a hundred million radiating utility meters would not have been installed across our country, severely damaging peoples' health right in their own homes. State and local governments would not have been deceived about the radiation risks to residents from these meters, nor about the alleged benefits (that they would support expansion of renewable energy technologies), nor deceived about alleged customer benefits ([97% of which have never materialized](#)).

Stimulus funding using taxpayer dollars would not have been wasted on 'smart' meters, that harm people while only serving the economic benefits of the utilities, which are incentivized to spend on capital investments to collect guaranteed rates of return from ratepayers on capital spending.

**If the FDA had done its job, the media the world over would have been able to warn the public about cell phone and wireless risks, instead of parroting the 'no risk' narrative.**

Because of the misperception that a thorough FDA evaluation had informed the FCC's exposure guidelines for Radiofrequency Radiation, the media has largely turned a blind eye to the cellphone and wireless risks, for decades, while exposures have impaired peoples' quality of life, job performance, ability to learn in educational settings, and driven up illnesses of many, many kinds, with most people in the dark not connecting the dots between their health challenges and the cellphone and wireless exposures.

If the FDA had done its job, health practitioners and patients would have been informed about the potential for Radiofrequency Radiation to impact drug actions, suppressing or amplifying the effects, in the over 4 billion U.S. retail prescriptions filled (2021).

If the FDA had done its job, industry representatives and their consultants would not have been able to mislead about Radiofrequency Radiation risk, as in this case, in a Verizon's consultant's [report](#) to a Manhattan Co-Op Board of Directors I advised. This is what was erroneously claimed:

*“Note that both the FCC and the Food and Drug Administration (FDA) have certified that continuous human exposure at RF levels up to and including the FCC MPE [Maximum Permitted] limit is considered to present no RF health risk. Moreover, the FCC MPE limit has been designed to provide appropriate protection for humans of either sex, all ages, all sizes, and under all conditions.”*

***Misleading about risks using the FDA's name is being done all across the country, leading local officials to make decisions that are dangerous for public health.***

If the FDA had done its job, society would also not live with non-stop online communications to the degree it does today, and the health and mental health risks from online time and social media algorithms that damage brains, including children's brains, would never be occurring.

I refer you to the Harvard University report by Norm Alster at the Edmond J. Safra Center for Ethics, [“How the Federal Communications Commission is Dominated by the Industries it Presumably Regulates”](#) (2015). This report suggests the telecommunications industry is using the same playbook the tobacco industry did to downplay the risks of Radiofrequency Radiation, including:

- Obtuse refusal to examine the health evidence
- Hyper-aggressive legal action and bullying
- Stonewalling PR
- Undermining credibility of the scientists
- Cutting scientist funding
- Publishing contradictory science
- Trivializing highly credible dissenters

- Misleading about scientific consensus
- Light regulation
- Industry control of Congressional committees
- Revolving door between industry & regulator
- Enormous sums on direct lobbying & via associations
- Hard \$ and soft \$ contributions

Clearly, if the FDA had been doing its job, and had thoroughly evaluated the biological and health risks from the Radiofrequency Radiation emitted by cell phones and wireless equipment, most of the above would never have been able to occur, or would have been called out.

An important question the Harvard analysis probed, by way of a poll, was:

**“Would consumers embrace cell phones and WiFi so enthusiastically if the wireless industry, enabled by FCC and ‘Congressional errand boys’, had not so consistently stonewalled on evidence and substituted legal intimidation for honest inquiry?”**

This poll showed that if certain health claims about cell phone radiation were known to be true, the public’s behavior would change. Informed citizens, the poll showed, would:

- Reduce wireless use
- Restore landlines
- Protect their children

It is high time for the FDA to come into integrity and conduct a thorough analysis of risks from Radiofrequency Radiation so that proper protection of human, animal and environmental health interests can take place.

- Protective, biologically-based exposure guidelines for RFR must be set.
- The pros and cons of different telecommunications technologies (fiber, wireless, cable, advanced copper, etc.) must be known so that the public, government officials and businesses can make fully informed choices;
- The FDA must conduct pre-market safety testing of wireless devices and wireless infrastructure prior to release of new equipment onto the market;
- The FDA must conduct short- and long-term post-market health monitoring of individuals living in dense wireless environments, and require towers be moved to protect public health, if necessary;
- The FDA and others must educate about health risks and how, through lifestyle changes, exposures might be reduced.
- The FDA must do everything possible to assure the American people that regulators’ top priority is public health and safety and demonstrate it is not a captured agency.

Additional steps that can restore the trust that has been lost due to lack of clarity on responsibility between the FCC and FDA and failure of government to protect public health can be found in [“33 Recommendations for the FCC, FDA and Congress”](#).

Respectfully submitted in support of *the Citizen Petition and Request for Legal Compliance with the Legal Obligations of the FDA Regarding Public Exposure to Non-Ionizing Radiation from Electronic Products submitted by Americans for Responsible Technology and other Petitioners*

A handwritten signature in black ink, reading "Camilla R. G. Rees", followed by a long horizontal flourish.

Camilla R. G. Rees

## **Statement of Michelle Lewis**

My name is Michelle Lewis. I am an attorney and a brain cancer survivor, and I am writing this statement in support of a Citizens Petition from Americans for Responsible Technology concerning the responsibility of the Department of Health and Human Services and its FDA division to comply with 21 USC Section 360 ii.

Having worked in law for a quarter century, I continually used two cell phones to balance my work life with my private life as a wife and mother. On calls, when I felt a slight burning sensation in my right ear, I simply switched the phones to my left and continued on with my calls. I had no idea that there could be any problem with cell phones, and was completely unaware that many independent scientific studies had demonstrated the potential for cell phone radiation to cause biological harm, at levels below government safety standards.

After many years of holding a cell phone against my head, doctors discovered a tumor the size of a grapefruit on the right side of my brain. I was devastated. I had no family history of brain cancer, and no other risk factors.

When I subsequently learned that the FDA has, since 1968, had a statutory responsibility to conduct research on this type of radiation, to evaluate the kinds of exposures that Americans are experiencing, and to develop techniques for reducing exposures, I was shocked. I wish I had been aware of the possible risk so I could have avoided a traumatic surgery that could have resulted in paralysis. Had I known, a simple change (not holding the phone to my ear) in my behavior would have saved my family many sleepless nights and the healthcare system significant expense.

I implore the FDA to embrace its legal responsibility to fully assess and disclose hazardous levels of radiation that result from improper cell phone usage.

Since my diagnosis and surgery, I have met countless other people who had experiences similar to mine, rarely with such positive outcomes. I am aware of others who have died from their cancer, never knowing that the FDA was supposed to be protecting public health by informing citizens of the potential danger from cell phones and other wireless devices.

I will always be grateful for a wonderful surgeon and a positive medical outcome, but my family and I now live with a chance of recurrence – all which I believe could have been prevented if the FDA had studied the risks, and made public the scientific debate

regarding those risks. To ignore this legal and ethical responsibility and place citizens in harm's way is unconscionable.

/s/

Michelle Lewis



## Statement of Zen Honeycutt

My name is Zen Honeycutt. I am the Founding Executive Director of the non-profit organization Moms Across America. I am submitting this statement in support of the Petition to the Food and Drug Administration (FDA) by Americans for Responsible Technology and other petitioners.

My family has suffered prolonged emotional stress, and my son has experienced debilitating physical symptoms related to exposure to radio-frequency radiation in his school. The failure of the FDA to follow the clear instructions of Congress to conduct research, evaluate current exposures and develop techniques for reducing or eliminating exposures is inexcusable, and has had a direct, profound and life-altering negative impact on my son and our family.

After a move, and after COVID shutdowns, our son entered a new high school in Buncombe County, NC. Within a few months, he was coming home with nosebleeds, headaches, fatigue, sadness, and a lack of focus. His normally straight A's in honors and AP classes dropped to D's and F's. At that time I had seen articles and news about teenagers being exposed to wireless routers (wireless access points, or WAPs) at school, linking the technology to depression and suicide, and I asked him where he was sitting in relation to the WAPs. He realized he was sitting directly below them in almost all of his classrooms, and when he moved away from them, he felt somewhat better. We brought him to a psychologist MD and he was diagnosed with depression and side effects from electromagnetic sensitivity.<sup>1</sup>

Our son finished his Junior year at high school, feeling depressed and enduring headaches, but could not attend his entire senior year at the public school because they refused to accommodate him by hardwiring even one classroom for him. He stayed home and homeschooled himself online, isolated, which contributed to a socialization depression. He is now likely permanently damaged from the close proximity and prolonged exposure to high levels of wireless radiation from the school. He can feel when a cell phone is on next to him and gets headaches when we travel due to the ubiquitous use of WiFi and Bluetooth technology in society. He is unable attend college and sleep in dormitories or enjoy a social life with his peers. This is a young man who had the intelligence and drive to attend a college such as MIT and make huge contributions to society in technology. He can no longer do so. His life has been forever altered.

Because the school looks to the FCC and its guidelines, which in turn depend on rigorous scientific analysis by the FDA, administrators continue to maintain that the exposure levels the children are experiencing are safe and they have no responsibility to make changes. They are unaware that FDA has shirked its legal responsibility and failed to do what was mandated by Congress. My son reported that he knew several children in each class that were depressed and

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<sup>1</sup> Note: According to Allan Brennan, award-winning WIFI installer, a WAP should never be placed directly in a classroom. Instead, they should be placed in the hallways, shielded and the power reduced by 99%. At these low levels, up to 1500 devices per school can be efficiently serviced. He states that the reason why service providers recommend one WAP per classroom is not for functionality but for the monthly service fees. The more devices they sell the more profit they make, regardless of the prolonged, close proximity exposure to our children.

reported headaches and nosebleeds as well, they just didn't know or want to believe it was the exposure to the WAPS that was causing the effects. At least one of those students that he knows of committed suicide that year.

Because the FDA has failed to follow the law, the FCC is refusing to acknowledge that prolonged exposure to wireless technology, in the forms of WAPs incorrectly placed in the classrooms (instead of in the hallways), and children across the nation are being harmed. This is unacceptable. Our children, our future workforce, and our leadership are being compromised. Therefore the future of our country is being compromised. The FDA must publicly admit its failure and advise the FCC to put out guidelines that account for the safety of the children.

Respectfully submitted,

/s/

Zen Honeycutt

## STATEMENT OF MICHELE L. HERTZ

My name is Michele L. Hertz. I am 64, an artist, wife, mother and the President of the New York Safe Utility Meter Association (NYSUMA). I am submitting this statement in support of the Citizens Petition being filed by Americans for Responsible Technology and other Petitioners.

The facts I present below demonstrate that I have suffered an injury traceable to the radiofrequency (RF) radiation emissions from digital utility meters,<sup>1</sup> a situation created by the failure by the U.S. Food and Drug Administration (FDA) to fulfill its legal duty to oversee such emissions by non-medical RF radiation emitting devices.

Since 2010, I have researched and documented the health and fire problems associated with digital utility meters. I have filed comments, sent letters, emails and phoned New York State and Federal government agencies, including the FDA, the Federal Communications Commission (FCC) and the U.S. Department of Energy (DOE), regarding the injuries that I (and others) have suffered due to the pulsed transmitted and conducted electrical and RF radiation from digital utility meters, sometimes known as "smart meters".

Before I was injured by the RF radiation emissions from digital utility meters, my family and I led a normal life. My husband and I both worked. We took many family trips with our sons. We were happy in our community. At home we used Wi-Fi and both my husband and I used cell phones.

The biggest mistake I have ever made was to allow utility workers to install "smart" AMR utility meters on my properties. With no available information from the FDA, I had no idea that a utility meter could be a health hazard. I relied on utility employees who told me that digital meters were safe. I infer they were only repeating what they were told by their superiors.

In 2008, I began to experience heart palpitations and insomnia. Then came agitation, memory loss, inability to concentrate on my work and hormone disruption. Then came the nightmares and waking with frightening heart palpitations, pains in my head, buzzing in my ears and headaches. I developed constant diarrhea that lasted for months. I lost 25 pounds. Then I developed Grave's disease, a health condition that can be caused by exposure to radiation. During this time, there were nights I would wake up thinking there was an earthquake, but it was my own body quaking and shaking. Other members of my family also began having health problems too, however my health was the most affected.

Because the FDA has failed to follow the mandate of Congress to develop a Program of Control, there was very little available information on what was happening to me. After a great deal of research and speaking with experts in electricity, I learned that my health problems – which started after the installation of digital utility meters – were unequivocally caused by

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<sup>1</sup> Digital Utility Meters include AMI, PLC, AMR, ERT, non-transmitting digital, Smart, etc. meters. Digital utility meters contain electronic components including antenna, switch-mode power supply, batteries, clocks and more. Analog utility meters are purely electro mechanical utility meters that contain no electronic components at all.

those meters. Finally, in 2010, I convinced the utilities to remove the offending meters and replace them with analog meters, and the worst of my health problems diminished substantially.

At this point I understood that there was something wrong with the new meters. I watched as other people in Hastings got sick and died. The meters were obviously dangerous. I tried to alert the utilities, elected officials, and state and federal government agencies, including the FCC, FDA, DOE, etc., thinking that the meters might be recalled. The evasive, irresponsible, dismissive, discourteous and lame responses I received from all of the above stunned me.

While I felt better after I convinced the utilities to remove the digital meters and replace them with analog meters, I continue, to this day, to experience RF sickness when I am exposed to some electronic and wireless devices and infrastructure.

In 2011, I had to relocate for periods of time from my home in Hastings, family, community and the art studio where I had worked for 15 years to a rural area in upstate, New York. I simply could no longer tolerate a congested RF environment flooded with radiation from numerous sources including cell towers, digital electric, water and gas utility meters and Wi-Fi routers.

In 2013, I got together with neighbors and commissioned an RF study of transmitting digital utility meters in our Hastings neighborhood, once we learned that digital meters were approved but never tested for health dangers by any government bodies. We hired an industry RF engineer, who discovered and documented that not only were the meters transmitting RF spikes constantly every 30 seconds, they were also causing RF to conduct onto home electrical wiring.<sup>2</sup>

This conducted and transmitted RF and electrical radiation remains, to this day, an unprecedented whole-body radiation exposure that surrounds us in buildings and the environment. Utility companies continue to claim, with no proof or factual basis, that digital meters are safe and only transmit once a day or for a few seconds a day. The FDA, with legal responsibility for evaluating these kinds of emissions, has failed to do its job.

FCC testing failed to detect health risks caused by the meters, but the FCC is not a health protection agency. It was and remains the FDA that is a health agency and which should have required testing for digital meters before they were unleashed on an unknowing public. Had the FDA tested the meters, as it was obligated to do, they would not have been approved. Injuries would have been avoided and lives would have been saved.

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<sup>2</sup> The engineer explains in his report that the FCC tested and approved electronic meters based on FCC Part 15 testing - not a test for health and safety but only to detect interference. The test was set up for wireless devices that employ power cords. This test was improper for digital utility meters because these meters do not employ power cords. Instead of developing testing for digital utility meters, the FCC-accredited lab workers altered the wireless meter by fastening a power cord to it. They altered the meter to fit a test modality that was not designed for utility meters. This laboratory set-up, in isolated conditions, failed to include utility-side wiring, consumers' circuit breaker panels, consumers' electrical circuitry and real-life electrical events like voltage surges.

Based on the FCC's defective and inadequate testing and approval process, and in the absence of any effort by the FDA to evaluate the potential effect of exposures from these meters on people, state regulators across the US approved digital utility meters and then only tested the new meters for accuracy. Together this colossal system failure and negligence has resulted in suffering and loss of life and property.

We had spent over two decades carefully restoring our historic 1910 home in Hastings, getting involved in community and school affairs. Finally, in 2019, after 22 years, my husband and I left Hastings for good and moved to a quieter RF area where we now reside.

I felt well for one year. Then in 2020 "smart" digital meters were installed on other homes in my neighborhood along with the wireless equipment necessary for their operation, and two huge 4/5G cell towers were built within 1.5 miles of our home. More recently, fiber optic equipment has gone up in our neighborhood. For me, having an analog utility meter is lifesaving but with all of the other equipment that has been deployed once again I am suffering. I am waking up at night alarmed with heart palpitations and am often unable to fall asleep again. I am again concerned that I am going to have a heart attack. Again, I am facing dangerous disruptions in my life and injuries due to the fact that there is no oversight for the safety of any of this technology.

While the FCC, with no health expertise or authority, clings to its dangerously outdated RF guidelines and the FDA completely ignores its own obligations regarding RF radiation, people, like me, get sick. Through the years I have tried to help as many RF injured people as I can, but I can never really help because the impact of these devices is not in my control. This predicament is the result of incompetence, avoidance and, ultimately, the abdication by state and federal government agencies of their legal duties, including the FDA.

Respectfully submitted,

Michele L. Hertz

## Statement of Laurie Brown

My name is Laurie Brown. I am submitting this declaration in support of the petition by Americans for Responsible Technology and other petitioners regarding FDA's failure to follow the law concerning the public's exposure to pulsating wireless devices emitting biologically disruptive radiation. The failure of FDA to provide truthful and complete information to the public has had a significant detrimental effect on my life and the lives of countless other Americans.

Despite the proliferation of wireless antennas, wireless devices, and the installation of cell towers and access points for Wi-Fi and wireless connectivity, the FDA is failing to ensure the public's safety as required by the law. The current safety guidelines promulgated by the FCC, which are allegedly based on information from the FDA, are outdated and are only thermal based. The FDA needs to conduct the necessary studies, evaluate the kinds of exposures that are happening in the real world, acknowledge, and address the biological harm caused by the increasing and limitless saturation of wireless radiation in our environment. The public deserves to know the truth and to be protected from increasing exposures that cause biological harm, symptoms, and diseases, preventing individuals from working, attending school, and living a healthy and fulfilling life.

I taught middle school for the Los Angeles Unified School District (LAUSD) for approximately 26 years. I rarely was ill and accumulated approximately 800 hours of sick time during my career, the equivalent of nearly 7-8 months of work. I enjoyed a normal, healthy life and never had to concern myself with routers, Wi-Fi or electro-magnetic radiation. Unfortunately, my career, health, and life as I knew it changed in April 2015, when my school "upgraded" our Wi-Fi system and added 190 access points, two in every classroom, and brought in wireless devices, increasing the total wireless radiation on campus. My District did little to protect me from the peaks or spikes of radiation emitted from all the wireless devices on campus.

Our system was activated in April 2015. After a few hours on campus, I would begin to feel ill and experience symptoms such as headaches, heart palpitations, skin burning, earaches, nausea, foggy headedness, inability to concentrate, and many other debilitating symptoms – all symptoms of microwave sickness. I was becoming electro sensitive and was diagnosed with Chronic Inflammatory Response Syndrome caused by exposure to RF radiation. After a few consecutive days of work and increased exposure on campus, I started using my illness days. Some other staff members experienced physical and debilitating symptoms from the increased radiofrequencies on campus, too.

My principal contacted LAUSD's Office of Environmental Health and Safety (OEHS) and wrote to the Inspector General of LAUSD sharing his concern as well as staff members' concerns. The District's OEHS Initially waited approximately 6 weeks, until Common Core Testing was over, when fewer students would be operating devices and on campus with cell phones, to measure the RF frequencies in specific classrooms. On June 22, 2015, during the

summer break, my principal wrote to LAUSD's Inspector General stating, "After the system was turned on, several employees complained of illness (headaches, light headedness, etc.)."

After the installation of the new commercial Wi-Fi system at my school and becoming ill from my exposure to EMF/EMR, I learned LAUSD had been warned by doctors and scientists, prior to installation, that the commercial grade Wi-Fi being considered was untested and potentially dangerous in school environments.

Meanwhile, the FDA is silent. It is not conducting studies, as the law requires. It is not evaluating workplace exposures like mine. And it is certainly not engaging in efforts to reduce or minimize those exposures, which is also required by the law.

When doctors prescribe medications, they do so with specific instructions to minimize side effects and over-dosing. The same safety precautions and concerns apply to overdosing on wireless radiation. More is not better and controls and guidelines are necessary. The FCC's old guidelines and school districts' RF protocols are not actually based on science, and are insufficient to protect children and the public. The FDA must address this immediate public health crisis. Protocols and protective measures must be developed and applied in real time, before it is too late.

Today, I no longer teach, something that was not only a career, but a great passion in my life. I loved teaching, found it stimulating, rewarding, and incredibly fulfilling. Because I enjoyed it so much, I intended to work for a lot longer, until a ripe old age, but I found it difficult to return to work without being reasonably accommodated. Unfortunately, I am unable to fill all my free time with meaningful activities and work due to the proliferation and installation of wireless antennas and devices everywhere. Therefore, I limit my time and exposure to RF radiation. Fortunately, my friends are willing to turn off their cell phones when they are out with me and in my home. My husband and I removed our Wi-Fi and cordless phones, turned off our wireless emitting devices, and use hardwired connections. I have a cell phone, but do not turn it on often and my husband mostly keeps his off around me. I know longer have the same freedom or luxury to enjoy limitless time out, travel, staying in a hotel, visiting family, and grocery shopping as I once did.

Living with Chronic Inflammatory Response Syndrome caused by EMFs (microwave sickness) is challenging and limiting. My quality of life has been severely reduced and none of it occurred by my choice: it was the direct result of FDA's failure to abide by the clear and unambiguous mandate from Congress. My health, lifestyle, quality of life, and freedom to come and go as I please have been drastically and negatively affected. In addition, my income and retirement have been significantly reduced. I am very fortunate to have a supportive and loving husband and family. Still, though, my condition and losses have impacted us.

As the nation's premiere public health agency, the FDA needs to be actively monitoring public exposure to wireless radiation. No longer should law-abiding, tax-paying citizens be

expected to sit by idly while our world is increasingly filled with dangerous radiation. Although it may be an inconvenient truth, more is dangerous and is very unhealthy. Too many people are already sick and more people will become seriously ill if we stand by and do nothing to address our chronic and limitless exposure to wireless radiation. I do not want others to suffer the same fate as me.

/s/Laurie Brown

Laurie Brown  
4221 Noble Ave  
Sherman Oaks, CA 91403