BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20554

In the Matter of

Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies

ET Docket No. 13-84

Proposed Changes in the Commission’s Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields

ET Docket No. 03-137

REPLY COMMENTS OF THE CITY AND COUNTY OF SAN FRANCISCO

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REPLY COMMENTS OF THE CITY AND COUNTY OF SAN FRANCISCO

I. INTRODUCTION AND SUMMARY

The City and County of San Francisco ("San Francisco" or "City") submits these reply comments to support the opening comments of the National Association of Telecommunications Officers and Advisors ("NATOA") and the Environmental Working Group ("EWG"). The City agrees that the Federal Communications Commission ("FCC" or "Commission") must revise its 1996 standards for human exposure to radiofrequency energy ("RF") emissions from cell phones so that they adequately protect children and reflect actual current use patterns, while providing meaningful disclosures that would enable consumers to reduce their exposure to RF emissions. The FCC should not weaken its existing standards by altering testing guidelines, as this would be a step backward in view of the unanswered questions about the potential long-term effects of cell phone radiation exposure.

In addition, the City submits these comments to respond to the opening comments of CTIA-The Wireless Association ("CTIA"). Based on its experience in San Francisco, CTIA warns the Commission that potential First Amendment issues could arise should the FCC require CTIA’s members to provide mandatory disclosures concerning the specific absorption rate
("SAR") of cell phones and other warnings about the use of cell phones to the general public. The First Amendment, however, does not bar the government from requiring factual and uncontroversial disclosure of information that is reasonably related to a legitimate public purpose (such as protecting public health). While San Francisco recognizes that the currently available SAR information might not be meaningful to the general public, a comprehensive review of FCC standards and the development of useful consumer metrics would alleviate any potential First Amendment issues. The City also disagrees with CTIA’s claim that the First Amendment somehow bars the Commission from requiring CTIA’s members to warn consumers of the potential health effects of cell phone usage. A thorough review by the Commission of the latest scientific research would likely enable the Commission to require cell phone manufacturers and carriers to warn consumers about a potential link between cell phone use and brain cancer, without infringing on their First Amendment rights.

In 2010, the City adopted its Cell Phone Right-To-Know ordinance because the City strongly believes that the public should be informed about the potential adverse health effects from the use of cell phones. 1 CTIA’s comments about its challenge to the ordinance could create the impression that the First Amendment flatly prohibits warnings about the possible health effects of cell phones, but the Ninth Circuit did not reach this conclusion in its unpublished memorandum. To the contrary, the Court held that San Francisco’s particular warnings were infirm, in part because the Commission had concluded that cell phones are safe for use. This indicates that if the Commission itself were to conclude that the scientific evidence warrants a health-related disclosure, the First Amendment would not likely bar such a requirement.

The Commission has both the expertise and resources to develop appropriate and scientifically valid SAR information and to adopt requirements regarding the disclosure of the

possible health effects of cell phone use. The City joins with EWG, NATOA, and many others that filed comments in this proceeding by urging the Commission to do just that.

II.  THE CITY SUPPORTS THE COMMENTS FILED BY THE NATIONAL ASSOCIATION OF TELECOMMUNICATIONS OFFICERS AND ADVISORS ENCOURAGING THE FCC TO COMPREHENSIVELY REVIEW CURRENT RF EXPOSURE STANDARDS

The current RF standards have been in place since 1996. The fact that the Commission has not undertaken a comprehensive review of those standards for nearly two decades is disconcerting to many consumers who have concerns about RF emissions, especially because of the evolving scientific research in this area, the dramatic increase in cell phone usage including among teens and children, and the many technological innovations that have occurred since then. As NATOA notes, the Governmental Accountability Office recognizes that the FCC’s “RF energy exposure limit may not reflect the latest research, and testing requirements may not identify maximum exposure in all possible usage conditions.”

As NATOA argues, the absence of current information concerning the continued validity of the standards might be a contributing factor to recent efforts by State and local governments to address consumer issues surrounding cell phones and RF emissions. Using San Francisco as an example, NATOA points out that consumer concerns about the potential link between cell phone exposure and health risks led San Francisco to enact its Cell Phone Right-To-Know ordinance, which required cell phone retailers in San Francisco to provide certain warnings to customers in their retail stores.

The City supports NATOA’s request that the Commission undertake a comprehensive review of its current RF standards. This request is warranted because: (i) scientific research

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3 NATOA Comments at 2-3.
4 A copy of the City ordinances enacting and amending the Cell Phone Right-To-Know law are attached hereto as Exhibit A. As further discussed below, the City ultimately repealed the law after the Court found that requiring cell phone carriers to make such disclosures violated their First Amendment rights.
continues to show a potential link between cell phone usage and cancer; and (ii) many changes in technology and usage patterns have occurred since those standards were first adopted.

III. THE CITY SUPPORTS THE COMMENTS FILED BY THE ENVIRONMENTAL WORKING GROUP

A. The FCC's Standards Must Be Revised To Consider Changes In Cell Phones And Their Use Since 1996

The 1996 RF energy emissions standards were adopted by the FCC at a time when cell phone use by children was rare, smart phones did not exist, cell phone cases were virtually unheard of, and the FCC assumed consumers would use belt clips or holsters to carry their phones. As EWG correctly notes, in the 17 years since the FCC developed those standards wireless technology has been revolutionized and cell phones are an essential accessory for most American adults, teens, and even children. As of 2012, there are 10 times as many cell phone subscribers than there were in 1997, and an increasing number of those subscribers are children and teens. Cell phone usage by subscribers has also grown exponentially. Many cell phone subscribers have abandoned their land lines and use their cell phones exclusively, particularly because many cell phone plans allow for unlimited usage. In 1996, cell phones provided voice service only. Today, almost half of all phones being sold are smart phones, with cell phone data usage taxing the capacity of the carrier’s networks. In 1996, the Commission and industry assumed consumers would use holsters to carry their cell phones. Today, many users carry their phones in their pockets, evidenced by the fact that the manufacture and sale of cell phone cases has become a multi-million dollar business.

These facts alone scream out for a comprehensive review of the Commission’s RF standards for cell phones. The current standards fail to account for the fact that children’s brains absorb more RF energy than adult brains. The standards do not consider how phone cases could alter RF exposure profiles, nor do they account for differences in cell phone networks or carriers.

5 EWG Comments at 2.
6 EWG Comments at 2.
7 See EWG Comments at 2.
And they do not provide adequate protection for people who carry their phones next to their bodies rather than in a holster. Concerned consumers who might seek to minimize their RF exposure from cell phones need the Commission to develop meaningful information to enable them to make informed purchases of cell phones and decisions about how to carry and use their cell phones.

1. **The FCC’s Standards Must Be Revised To Ensure That They Adequately Protect Children**

Unlike in 1996, today cell phone use is common among children and teens. This is in no small part due to aggressive marketing towards children by cell phone carriers. Phones, cases, and covers now come in bright colors and patterns and many display images of kid-friendly cartoon characters. Cell phone carriers make it relatively inexpensive for families to add lines to their plans so that every child can have his or her own phone, even if those phones are only to be used to stay in touch with their parents. While parents might feel safer when they know they can reach their children by phone, they can’t necessarily control how those phones are used. These trends highlight the need to ensure that children are not being exposed to cell phone radiation levels that have the potential to cause harm.

There is increasing evidence that children are more vulnerable to potentially harmful RF emissions from cell phones. In its comments, EWG cites studies from scientists around the world showing that the head and brain of a child absorb significantly more radiation than those of an adult – due in part to the thinner skulls of children and the higher water and ion content of their tissues.⁸ Despite this evidence, the FCC’s cell phone emission levels and federal standards are based solely on radiation absorbed by adults. The FCC’s 1.6 W/kg SAR standard is modeled on an adult head. This exposure standard leaves very little safety margin to account for the extra sensitivity of children. As a result, the FCC standards do nothing to ensure that a child using a cell phone does not absorb an amount of radiation above the maximum allowed limits.

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⁸See EWG Comments at 4.
While the World Health Organization ("WHO") International Association for Research on Cancer ("IARC") has classified RF emissions as "possibly carcinogenic to humans," scientists have not yet definitively determined the long-term effects of ongoing exposure of RF radiation on children's brains. As EWG notes, WHO has put a high priority on research involving neurological and behavioral disorders and cancers among children and teens.¹⁰

Protecting our nation's children should be a high priority for the FCC. The City agrees with the EWG that the absence of scientific studies concerning the effects of cell phone radiation on children strongly suggests that the FCC standards must be updated to specifically address whether exposure levels need to be adjusted to adequately protect children.

2. The FCC's Standards Must Be Revised To Reflect Actual Patterns Of Consumer Use

The testing standards the FCC developed in 1996 assumed that consumers would carry their phones in holsters attached to their hips. That assumption is no longer a valid one. Belt clips and holsters are no longer commonly used cell phone accessories. Instead, most cell phone users now use form-fitting cases, or no case at all, and many users carry their phones in their pockets.¹¹ These new usage patterns call the FCC's RF standards into question. The Commission has acknowledged "there are circumstances where test configuration may not reflect actual use" because current federal guidelines allow cell phone companies to use a spacer of 2.5 centimeters in "body-worn testing configurations."¹² The City agrees with EWG that the FCC must update its standards and testing guidelines to reflect actual use patterns in order to protect and inform consumers.

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¹¹ See FCC NOI at ¶ 248.
FCC NOI at ¶ 248.
These concerns are not merely speculative. In a 2012 report, the Government Accountability Office ("GAO") concluded that consumers who hold their cell phones directly against the body could receive "RF energy exposure higher than the FCC limit." The GAO recommended that the FCC "[r]eassess whether mobile phone testing requirements result in the identification of maximum RF energy exposure in likely usage configurations, particularly where mobile phones are held against the body, and update testing requirements as appropriate."

The City agrees with the GAO and EWG. It is vitally important that the FCC incorporate these various accessories and differing circumstances into its testing guidelines. The FCC needs to determine whether the use of a cell phone case is likely to increase or decrease RF exposure so that consumers can make informed decisions. The FCC must also investigate whether consumers need to be warned about the dangers of carrying their cell phones in their pockets.

B. The FCC Must Not Weaken Its Existing Standards By Changing Testing Guidelines

The City agrees with EWG that the FCC should not take up the industries' request that it weaken its existing testing guidelines for radiation exposure by calculating SAR values averaged over a larger volume of tissue. The FCC currently calculates SAR values based on one gram of tissue. As EWG notes, calculations based on larger tissue volumes shrink SAR estimates in comparison with those based on smaller tissue amounts and could cause serious underestimates of the amount of RF exposure from cell phones. Weakening that standard also ignores the higher susceptibility of children.

The City agrees with EWG that increasing the tissue mass used to calculate SAR values could result in underestimates of the actual exposure to electromagnetic radiation from cell phones. In light of the potentially severe consequences associated with increased cell phone

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13 EWG Comments at 10, quoting Government Accountability Office, Exposure and Testing Requirements for Mobile Phones Should Be Reassessed, GAO-12-771 (July 2012).
14 Id.
15 See EWG Comments at 16-17.
16 EWG Comments at 16.
usage, the City urges the Commission to maintain the long-standing one-gram tissue model for testing in order to ensure adequate protection for all consumers.

IV. THE FCC SHOULD DEVELOP AND REQUIRE MEANINGFUL CONSUMER DISCLOSURES CONCERNING THE RISKS OF CELL PHONE USE

A. The FCC Should Develop A SAR Metric That Would Be Meaningful To Consumers

No one expects consumers to give up their cell phones. That does not mean, however, that cell phone users are not concerned about RF exposure from their cell phones. It was those concerns that prompted the passage of San Francisco’s Cell Phone Right-To-Know ordinance in 2010. In San Francisco, and around the world, many consumers are interested in reducing their exposure to possibly carcinogenic RF emissions. Exposure reduction can be accomplished in many ways, including using headsets, texting instead of calling, or choosing phones or networks that expose them to less RF energy over time.

As originally enacted, of San Francisco’s Cell Phone Right-To-Know ordinance required retailers to “post information next to phones, listing their specific absorption rate (SAR) – the measured rate at which radio waves emitted from a cell phone are absorbed by the user’s body.” The City subsequently amended the ordinance to instead require cell phone retailers to notify consumers of ways to reduce their exposure to RF emissions from cell phones. But San Francisco did not entirely abandon its preference for SAR. The amended ordinance urged the “FCC and the scientific community to develop a metric for measuring the actual amount of radiofrequency energy an average user will absorb from each model of cell phone” in order to “better enable consumers concerned about the potential effects of radiofrequency emissions to compare cell phone models and make informed purchasing decisions.”

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17 See San Francisco Ordinance No. 155-10 (Exhibit A).
18 See San Francisco Ordinance No. 165-11 (Exhibit A).
19 See San Francisco Ordinance No. 165-11 (Exhibit A).
The FCC and CTIA both acknowledge that the SAR values presently available are not a good predictor of actual exposure to RF energy from cell phones. While current standards focus on differing cell phone models and their particular SAR values, recent studies have indicated that a consumer's choice in wireless network may be a more important factor in cell phone RF exposure than the cell phone model. Cell phone cases also can significantly alter the RF exposure profile of a cell phone, either increasing or even decreasing emissions. Yet, the FCC's current standards do not take any of these variables into account; and the FCC provides no information that consumers can use to help guide their purchasing decisions for wireless carriers, phones, and accessories.

These problems with the value to consumers of SAR information can all be remedied. The City agrees with EWG that the FCC must develop and mandate the disclosure of real-world SAR values for phones and networks.

B. The First Amendment Does Not Prohibit The FCC From Requiring Cell Phone Manufacturers And Carriers To Provide Consumers With Accurate And Uncontroversial Facts About The Potential Health Effects Of Cell Phone Usage

San Francisco’s Cell Phone Right-To-Know ordinance at first required cell phone retailers displaying models of their available cell phones in stores to post the following information: (i) the SAR value for the model and the FCC’s maximum SAR value; (ii) a statement explaining what a SAR value is; and (iii) a statement that additional information about SAR values and cell phone use were available from the retailer. After CTIA sued the City, challenging the ordinance on preemption and First Amendment grounds, the City amended the

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20 FCC NOI at ¶ 234; CTIA Comments at 44.  
21 See EWG Comments at 12-13.  
22 See EWG Comments at 13-14.  
23 See EWG Comments at 11-15.  
24 See San Francisco Ordinance No. 155-10 (attached as Exhibit A).
ordinance. The amended ordinance instead required posting information about how cell phone users could reduce their exposure to RF emissions from cell phones. The City ultimately agreed to a stipulated judgment striking down the ordinance after the Ninth Circuit found that the required disclosures were unconstitutional, because they were not "purely factual and uncontroversial." In reaching that conclusion, the Ninth Circuit found that the Commission has "established limits of radiofrequency energy exposure, within which it has concluded using cell phones is safe."

CTIA claims that the information currently available to consumers is accurate and adequate and that as a result, requiring further disclosures or warnings about RF exposure would be potentially misleading, controversial, and unnecessary given the Commission's current regulatory regime that ensures cell phones are safe for consumers. Despite its claims that accurate consumer disclosures exist, CTIA warns the FCC that the current SAR data available is not a useful consumer metric and is not meaningful in terms of possible harm. CTIA also warns the FCC that any required "advisories or warnings connected" with the use of "approved cell phones" would "confront a First Amendment minefield." But, if the Commission were to develop more reliable RF exposure metrics and other disclosure information consistent with current scientific knowledge, any potential First Amendment concerns would be mitigated.

The First Amendment protects the right not to speak just as much as it protects the right to speak. Yet, the federal government has for decades mandated warnings and compliance

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26 See San Francisco Ordinance No. 165-11 (attached as Exhibit A).
29 CTIA Comments at 34.
30 CTIA Comments at 44.
31 CTIA Comments at 44 (emphasis added).
labeling in numerous situations and on a variety of products. The government is justified in compelling these kinds of messages as long as they convey truthful information in an unbiased format. The First Amendment is violated only where compelled speech includes information that runs counter to scientific fact, or imposes undue, unjustified burdens on speech.

The level of scrutiny applied by the courts in these compelled speech cases has been critical in determining the outcome. Generally, under the lower standard set forth in Zauderer v. Officer of Disciplinary Counsel, the government may require disclosures of “purely factual and uncontroversial information” that is “reasonably related” to a legitimate public purpose (such as protecting public health). Under Zauderer, the government must still show that the harm it seeks to mitigate through a disclosure requirement is “potentially real, not purely hypothetical.” The government must provide “some indication that [the disclosed] information bears on a reasonable concern for human health or safety or some other sufficiently substantial governmental concern.”

As EWG notes, the current scientific research shows there is a good reason to fear a link between cell phone use and brain cancer. While the evidence available is inconclusive, there are still sufficient reasons to believe that a valid public health concern exists. As the district court in the CTIA case found, “[e]ven the FCC has implicitly recognized that excessive RF

33 For example, Surgeon General’s warnings on cigarettes, FDA warnings on drug side effects in pharmaceutical advertising, USDA mandated food labeling and compliance with government-established food standards, and EPA mileage ratings.
34 See Zauderer, supra, 471 U.S. at 651-53 upholding required attorney disclosure of difference between “costs” and “legal fees” in advertisement for contingent fee cases).
36 Zauderer, supra, 471 U.S. at 651.
37 CTIA asserts that government compelled speech is subject to a much higher level of scrutiny; but the case upon which it relies deals with actual restrictions of commercial speech, like bans, not disclosure requirements. See CTIA Comments at 16, fn. 79, citing Video Software Dealers Ass’n v. Schwarzenegger, 556 F.3d 950 (9th Cir. 2009) (applying strict scrutiny to a ban on selling violent videogames to minors and finding the ban violated the First Amendment).
39 Int’l Dairy Ass’n, supra, at 92 F.3d at 74.
40 See EWG Comments at 15.
radiation exposure is potentially dangerous. It did so when it 'balanced' that risk against the need for a practical nationwide cell phone system. The FCC has never said that RF radiation poses no danger at all, only that RF radiation can be set at acceptable levels."\(^{41}\)

CTIA suggests that any mandated disclosure would be invalid because of the controversy over whether cell phones cause health problems.\(^{42}\) That is not what the standard in Zauderer means. The government may impose disclosure requirements to promote the state’s interests in many controversial areas such as, abortion and birth control. The required disclosures, however, must be “factual and uncontroversial."\(^{43}\) As noted earlier, the Ninth Circuit relied on this Commission’s 1996 determination that cell phones conforming to the Commission’s standards were safe when it struck down San Francisco’s ordinance.\(^{44}\) Given the Zauderer standard, if the FCC now were to conclude that the scientific evidence warrants a disclosure requirement, the courts will likely defer to the FCC’s judgment in that regard.

The Commission should take this opportunity to develop accurate, consumer-friendly metrics and updated disclosure information reflecting current scientific knowledge. Improved metrics could help consumers make informed choices about how to deal with what the scientific community agrees is a potential risk, while mitigating any First Amendment concerns. For similar reasons, the Commission could craft warnings about cell phone usage that are consistent with current scientific research on the potential dangers of exposure to RF emissions. Requiring the cell phone industry to make such factual disclosures would pass muster under the First Amendment.

\(^{41}\) CTIA, supra, 827 F. Supp. 2d at 1062.
\(^{42}\) See CTIA Comments at 46-47.
\(^{43}\) Zauderer, supra, 471 U.S. at 651.
\(^{44}\) CTIA, supra, 494 Fed. Appx. at 753.
V. CONCLUSION

San Francisco supports the comments submitted by NATOA and EWG and urges the Commission to undertake a comprehensive review of its current RF standards to develop new standards that adequately protect children, reflect actual consumer use patterns, and current scientific knowledge. In addition, the City urges the Commission to develop a new metric for evaluation of the RF exposures from different cell phone models used on different networks to provide reliable and meaningful consumer disclosures related to their choices of cell phones and carriers, thus avoiding any potential First Amendment issues. The Commission should also develop warnings about the potential health effects of cell phone usage that are consistent with the present state of scientific knowledge on the subject.

Dated: November 1, 2013

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